Gleanings in Bee Culture

Established 1873

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December, 1940

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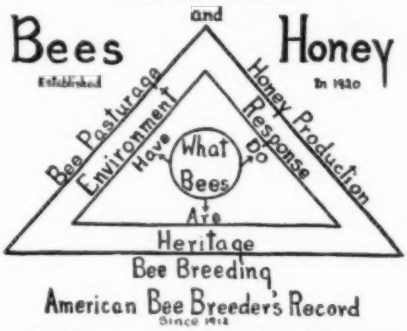

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The Monthly Honey Market

U. S. GOVERNMENT REPORT
Information from Producing Areas (last half of October).

California Points: Southern California.—Temperatures have ranged from normal to slightly above, with occasional very high temperatures. Considerable cloudiness reported, and fairly heavy rainfall in most areas. Bees in the valleys are getting some honey from mustard and from off-bloom oranges, and sufficient pollen to carry them until early plants are available. In the hills, however, bees are broodless. Eucalyptus has started to bloom a little near the coast and goldenrod, blue curl and a few other plants are also still blooming lightly. In the Coachella Valley colonies are still gathering considerable nectar from Spanish needle and pollen from alkali weed and other plants. They still have 2 or 3 frames of brood. Beekeepers are reported reluctant to sell their remaining holdings of honey at prevailing prices, though some of them feel that demand is fairly good for this time of the year. Prices show little change. Sales by beekeepers in case lots or more, per lb., at Southern California delivery points—Orange, Water White 4¾-5¼c, Extra White 4¾-5c, White 4¼-4½c; Sage, Water White 4⅞-5¼c, few 5½c, Extra White 4¾-5¼c, few 5½c, White 4⅜-4¾c; Sage-Buckwheat, Extra Light Amber 4 1/6-4 5/12c, Light Amber 4-4¼c. Sales at country points—White Sage 4¼-4⅜c; Light Amber Sage-Buckwheat 3¾c per lb. Beeswax has been in fair demand and at higher prices, with prevailing offers ranging 18-20c per lb., delivered Los Angeles.

Imperial Valley.—The weather has been warm but little pollen and practically no nectar are being gathered. Considerable brood is reported in most colonies. As a result of dusting being done on many fields of lettuce, peas, beets and other crops, many apiaries are being moved to desert locations where nectar is unavailable in order to escape damage from the poisons. This year's Alfalfa flow continued only one-half of the usual time and averaged only 45 pounds per colony, only half the usual amount.

Central California.—Rains were general, varying from light showers to fairly heavy rains in different sections. Few nectar-bearing plants remained to benefit by the rainfall and the honey flow is practically over for the season. Bees reported going into winter in fair condition. The market has been quiet. Some beekeepers are offering honey at distress prices, but in general the market shows few changes. Sales by beekeepers in ton lots or more, per lb.; delivered Bay Cities—Light Amber to Extra Light Amber Cotton-Alfalfa 3¼-3½c; Extra Light Amber Blue Curl 3½c; Light Amber Mixed Flowers 3-3½c. Delivered Interior Valley Points—Light Amber Cotton-Alfalfa mostly 3c; Water White Orange mostly 5c; Extra Light Amber Blue Curl 3c; Amber to Light Amber Mixed Flowers 2½c. Sales at country points—Extra Light Amber Spikeweed-Blue Curl 3⅝-3 7/12c. Sales delivered Los Angeles. Los Angeles to East Los Angeles Cotton-Alfalfa $4.00-4.25 per case; Los Angeles to East Los Angeles Alfalfa $4.25-4.35, some $4.00 per case.

Northern California.—Rains were general over the area during the last half of October, with snow at the higher elevations. An unusually warm fall has resulted in a longer honey season than usual and though the flow is about over bees are still gathering some nectar from spikeweed, star thistle and other blooms. Most colonies will be heavy with honey and pollen this fall. Plants are in normal condition. In the Sierra Mountains cedar honeydew is exceedingly abundant, but the pollen supply has been short and temperatures at night have been too low for much bee activity. Trading has been rather slow, with most local dealers having ample supplies of honey for current needs. Prices have continued fairly steady. Sales by beekeepers in ton lots or more, per lb. delivered Bay Cities—Thistle, Extra Light Amber to White mostly 4c, few 4½c and small lots Water White higher; Light Amber to Extra Light Amber Alfalfa 3¼-3½c; Light Amber Mixed Flowers 3-3¼c, few lots higher. Delivered Interior Valley Points—Extra Light Amber to White Thistle 3¼-3½c; Light Amber Mixed Wild Flowers 3-3½c.

The beeswax market has been quiet, with good yellow wax bringing 18-19c per lb. delivered Bay Cities.

Pacific Northwest: West of Cascades.—Temperatures have continued moderate with considerable rainfall in all districts. Although there has been a good late yield of pollen from dandelion and other flowers brought on by the fall rains, the bees have not been able to take full advantage of the flow because of the cloudy, rainy weather. However, most colonies have heavy clusters of bees with ample stores of nectar as well as pollen. Some colonies, however, in areas in which the late flow was light report heavy consumption of stores this fall. Heavy rains have started spring annuals and all plants are above normal in condition. Vetch acreage is reported one-third above last year, which itself was above average. Demand for honey has been rather slow and the market slightly weaker with price ranges unusually wide, especially for local sales. A small lot of Water White Fireweed reported sold at 6½c per lb. delivered Portland, but little Water White is available and most sales of Fireweed are White to Extra Light Amber, which is quoted at 5-5½c per lb. delivered Portland; ton lots White Alfalfa-Clover 4½c per lb., 60s, 5½c per lb.; small pails wide range 5-9c per lb., few higher. Wrapped Alfalfa-Clover comb, $3.20 per case.

SUMMARY—The weather has been abnormally warm over most of the country except the Northeast and bees have been able to fly frequently. Little nectar or pollen have recently been available except on the Pacific Coast, in portions of the Clover

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Belt where late asters were in bloom, and in the South from goldenrod and other late plants. Less feeding will probably be necessary than a year ago but throughout the North where frosts came early and where rainy weather prevented bees from flying during the fall, feeding will be necessary to some extent in many yards. Rainfall has been reported during this period from the central and western portions of the country and except in the Southeast, where drouth is still serious, most sections have sufficient moisture to carry plants into winter in satisfactory condition. Large areas of the country that normally have freezing weather or killing frosts by this time continue frost-free. Most colonies are going into winter with adequate supply of young bees and for the country as a whole there seems little doubt that colony condition is measably superior to that of a year ago. Beekeepers are optimistic regarding next year's prospects, not only because of the better condition of the bees but because nectar-bearing plants in most important producing areas are in exceptionally good condition as a result of fall rains.

They are not so optimistic, however, regarding marketing conditions. During recent weeks honey has been moving exceptionally rapid in large lots, and small lot sales and local sales have also been good. Many commercial beekeepers are nearly sold out. Price levels, however, continue relatively low, with White extracted honey in the Central and Plains States generally selling at 4½c and occasionally 5c per lb. f.o.b. shipping points, and often at those prices delivered to market. A slightly higher price level has appeared recently in the East Central States, and to a lesser extent in the Plains Area, but this advance is not reflected in the western portion of the country. The movement of honey to Canada continues, and is one of the reasons for the optimistic attitude of beekeepers in States near the eastern Canadian Border. Publicity plans developed at the recent national meeting of the American Honey Producers' League and the American Honey Institute also lend weight to the optimism of some beekeepers. Sales of comb honey have been sufficiently heavy so that stocks are rapidly being depleted.

Monthly Report of Honey Producers

Early in November we sent the following questions to honey producers: 1. What per cent of the honey produced in your locality has already left the hands of the producers? Give answer in per cent. 2. At what price has honey been sold or contracted for, if any, in large lots (carload or less) in your locality during the past month for (a) extracted honey per pound? (b) comb honey, Fancy and No. 1, per case? 3. What are prices when sold to grocers in case lots of (a) extracted honey in 5-lb. pails, or other retail packages in terms of 5-lb. pails? (b) Comb honey, fancy and No. 1, per case? 4. What is the retail price to consumers in your locality of (a) extracted honey in 5-lb. pails, or other retail packages in terms of 5-lb. pails? (b) Comb honey, fancy and No. 1, per section? 5. How is honey now moving on the market in your locality? Give answer in one word, as slow, fair or rapid. 6. What is the condition of colonies for winter in your locality compared with normal, considering the number and age of bees and the supply of stores? Give answer in per cent. 7. How does the number of colonies to be wintered in your locality compare with that of last year? Give answer in per cent. 8. What is the present condition of honey plants in your locality as compared with the average? Give answer in per cent. The answers received are tabulated as follows:

Date Rec'd.			1.	2.		3.		4. To consumers.		5.	6.	7.	8.
Nov.	State.	Name.	Pct. sold.	Large lots. Ex.	Comb.	To grocers. Ex.	Comb.	Ex.	Comb.	Move-ment.	Cond. of col.	No. of col.	Cond. honey plants.
11	SE-Ala.	(H. C. Short)	80			.30		.40		Fair	90	100	80
14	B. C.	(A. W. Finlay)	65	.10½		.70		.90		Fair	100	100	100
13	S-Calif.	(L. L. Andrews)	50	.04½				.44	.18	Fair	90	100	80
13	SE-Colo.	(Otis E. Adcock)	10			.39	3.25	.45	.18	Slow	100	25	100
11	E-Conn.	(Allen Latham)	15			.75	5.00	1.00	.28	Fair	100	95	90
12	S-Fla.	(C. C. Cook)		.04		.35		.50		Slow	100	110	100
12	C-Fla.	(Harry Hewitt)				.50		.65		Fair	80	100	100
12	SE-Ga.	(J. J. Wilder)	70	.05½		.50		.60		Fair	100	115	0
11	S-Ills.	(Carl E. Killion)		.06	3.20	.45	3.50	.62	.19	Fair	120	100	85
11	NC-Ind.	(T. C. Johnson)	25			.50	3.00	.63	.19	Fair	90	90	100
11	NW-Ind.	(E. S. Miller)	25			.45	3.00	.60	.18	Slow	100	60	90
11	W-Iowa	(E. G. Brown)	90	.05	2.50		3.00	.59	.15	Rapid	100	100	120
14	N-Me.	(O. B. Griffin)	40				4.75	.49	.27	Slow	100	100	100
11	C-Md.	(S. G. Crocker, Jr.)	20			.60	4.00	.75	.20	Fair	90	100	
12	N-Mich.	(Ira D. Bartlett)	34	.04½		.34	3.00	.44	.16	Fair	50	100	125
8	E-Mich.	(L. S. Griggs)	40	.05½		.40		.50	.16	Fair	100	125	125
11	S-Mich.	(Floyd Markham)		.05	2.75	.40	3.00	.65	.20	Fair	100	90	100
11	C-Mich.	(E. D. Townsend)	70	.05¾						Fair	100	120	125
18	C-Nebr.	(J. H. Wagner)		.04½	2.15	.33	2.40	.39	.15	Slow	95	80	65
15	W-Nev.	(Mrs. E. G. Norton)			2.50	.35		.40		Slow	90	80	90
11	W-N. M.	(C. A. Baltzley)	20	.06		.45		.61	.23	Fair	100	100	80
13	NW-N. Y.	(Geo. B. Howe)	50			.50	3.60	.65	.20	Fair	95	100	80
8	C-N. Y.	(F. W. Lesser)		.06½		.45		.60		Fair	100	90	100
11	SE-N. C.	(W. J. Martin)	75	.06		.60		.80	.20	Fair	100	95	100
13	E-N. D.	(M. W. Cousineau)		.05		.48		.39		Fair	90	90	100
11	C-Ohio	(R. D. Hiatt)	50	.06	2.50	.48	3.60	.63	.19	Fair	110	90	100
13	NC-Okla.	(C. F. Stiles)	30			.45	3.50	.65	.19	Fair	95	100	90
11	W-Ore.	(H. A. Scullen)	50			.38		.43		Slow	100	100	100
13	SE-Pa.	(D. C. Gilham)	5	.08½		.70	4.25	1.00	.25	Slow	80	85	100
18	SE-S. D.	(J. F. Norgren)	25	.05		.40		.47	.13	Fair	100	100	90
11	C-Tenn.	(J. M. Buchanan)	90					.75		Fair	95	100	95
12	C-Texas	(T. A. Bowden)	50			.45		.55		Fair	100	95	100
13	W-Vt.	(Phillip Crane)			3.63	.72	4.00	.80	.25	Fair	100	100	90
12	N-W. Va.	(W. C. Griffith)						.50	.18	Slow	80	100	90
11	SE-Wisc.	(N. E. France)	75			.30		.37	.13	Fair	107	110	100
12	N-Wyo.	(Earl C. Reed)	50			.40		.49	.18	Fair	100	100	90

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Vol. 68
No. 12

Gleanings in Bee Culture

December
1940

Weeding Out Poor Stock

By Clarence Tontz

Is it a good policy to kill bees in the fall and replace them with packages the next spring? Can they really be replaced? If all stocks of bees were alike this would appear possible. But it doesn't appear feasible to kill off some ace colonies in the fall and run the risk of securing their equal in packages.

This fall at the Schultz Honey Farms in Wisconsin we began a program to weed out poor stock. All poor queens, regardless of their age, were destroyed. The queenless colonies were then left to work on the fall flow, if any, and to clean up the brood combs as the brood emerged. The brood-rearing curtailed, the consumption of pollen was, of course, greatly reduced, and many fine combs of pollen were obtained from these queenless colonies. They will be evenly distributed among the packages next spring. The queenless colonies are gassed in the fall when the honeyflow has ended.

We started out with the policy of destroying all queens two years of age. But in one apiary of recent package stock the '39 queens were "fat and firm". Their brood nests were excellent. Certainly they would be able to go through the winter in fine shape. Perhaps a few of them will be superseded next spring. Any colonies failing to supersede a failing queen at that time will be requeened.

Each queenless colony destined to be destroyed were examined for AFB as the emergency queen cells were destroyed one week after the failing queen had been killed. We wished to make certain that the package bees will be installed in clean combs next spring.

The writer and the smaller colony are dwarfed by the giant colony.

All through the "purge" we were pleasantly surprised to find that many colonies had carried out the desirable program of timely supersedure. Timely supersedure, of course, can mean nothing else but the rearing of a young queen long before the old queen has shown signs—to the human eye—of failing. Several of these colonies were found to have the

When colonies are stripped down in the fall the powerful force of the strong colonies is revealed as in the first hive of the row.

old and the young queen laying peacefully side by side.

Strong colonies with virgins were marked for later examination. If they quickly mated and were laying well they were kept; if not, the colony was marked for extermination.

Destroying poor stock in the fall cuts out the expense and labor of requeening, feeding, packing. In short, poor stock is like thistle in a corn field. Both require a lot of work; but neither is very profitable.

The vacant stand in the out-yards resulting from the destroyed colonies will be filled up with colonies from perhaps two other out-yards before they are packed for the winter. The packages received next spring will be placed in either one or both of these vacant out-yards.

In the future good beekeeping will probably exclude the practice of requeening. It will be desirable to breed only from timely supersedure stock. It will not be the beekeeper's place to judge the length of life for a queen. Quality queens are not only blessed with egg-laying ability; we found them to have stamina and longevity.

Our strongest colonies, the ones that stack the supers up the highest, are the ones that have the fewest swarm cells in the spring. Occasionally, some of these best ones have left us behind in supering. Although they would be literally plugged up with honey and pollen (this was during the swarming season) few had swarm cells. Many—too many—mediocre colonies have as their chief interest the raising of a multitude of cells.

Uniformity in colonies is greatly aided by ample stores in the fall. Sugar syrup is given to fill out empty spaces in the combs.

Most beekeepers, if the honey crop is poor, blame the weather. Mark Twain once said, "Everybody talks about the weather but no one does anything about it". Here is a chance for the beekeeper to disprove that remark. The beekeeper can improve the season by improving his stock. In order to get a fair crop of honey it is necessary to have colonies that will show substantial gains not only during heavy flows but during mediocre flows.

Picture No. 1 is an example of the case in point. Our really heavy honey flow here in this section of Wisconsin lasted only one week, a sultry week in the latter part of July. Now, a strong colony can really drag in a lot of nectar in one good week, but it would fall far short of 300 pounds. The larger colony shown here (we had several but not enough) demonstrates that it was making good gains before the heavy flow began. The smaller colony (more numerous than its neighbor) made only small gains during the cool weather of June and the first part of July with clover more abundant than it has been in years.

Glancing at this smaller colony and the others its size, one would remark, "a poor season". On the other hand, if we were to consider only the skyscrapers with their 250 to 300 pounds we would probably admit, "not bad at all".

Two different seasons in one apiary, made not by the weather but by the bees themselves.

Stillwater, Okla.

"Stimulative" Feeding---For and Against

By John De Burgh Leake
Founder and Organizer, Irish Guild of Bee Culture; Hon. Sec., Irish Register of Honey Producers; Bee Expert: Independent Newspapers, Ltd.

Most readers of Gleanings understand the supposed **rationale** of stimulative feeding. The food is given to the bees not necessarily because stores are short, but because it is believed that by inducing artificially what must appear to the bees as the advent of a honey flow, the queen, reacting to the general excitement, will proceed to increase her output of eggs, more brood will be reared, and the hive's population reach peak proportions much earlier than would have been the case had no stimulation been applied. Thus, in spring, the bees will be able to take full advantage of an early flow, and, in autumn feeding, will go into winter quarters well provided with young bees.

This is the teaching of many Irish and British authorities, and of an ever-dwindling number of American bee masters. It seems to present a cast-iron argument. Let us examine the other side of the question.

When spring syrup is given, the weather is usually unsettled and cold snaps are still likely. As soon as news of the "honey flow" travels round the hive—and that is only a matter of minutes—foragers, regardless of the weather, rush into the open air, seeking in vain the source of nectar. Many die in cold winds and cannot for several weeks be replaced. They are foragers and therefore of a certain age, while those left at home are younger bees, not yet fitted for the strenuous work of nectar and pollen gathering. Apart from compelling the community to carry on with a diminished force of foragers, the "balance" of the beehive is upset.

Why, some may ask, do the bees imagine the source of the food to be outside instead of inside the hive? The explanation is that, firstly, so unnatural a phenomenon as a supply of food with the hive is unbelievable, even to the bees that are taking the syrup. Secondly, very few bees get close to the feeder; the bulk of the foragers know only that nectar, for some unexplained reason, is being poured by their fellows into the cells. They realize that famine has been broken, that the siege of winter has been raised, and proceed to take advantage of that fact with their customary enthusiasm.

It must also be remembered that pollen and water are as essential for brood rearing as honey or syrup. Therefore, foragers diligently seek supplies, perhaps in unsuitable weather, or when none is obtainable, and thus add to the death-roll.

The mellow days of autumn do not hold this menace to the same extent. It has indeed been said with some justification that, apart from the additional stores provided, feeding after the flow has distinct advantages, inasmuch as it discourages robbing and enables the bees to cap their winter supplies. My own opinion is that all types of feeding are more likely to encourage than discourage robbing. In any case, to prevent robbing by this means, it is necessary to start slow feeding immediately the flow ceases. As regards the second advantage, the capping of combs certainly discourages the formation of mold, which originates principally in the uncapped pollen, and which often occasions a scarcity of this essential material in early spring, before supplies from outside sources become sufficient to satisfy the fast-growing needs of the brood-nest.

Stimulative feeding does, of course, achieve the object its advocates desire. As a result of the enthusiasm aroused by the sudden and unexpected honey flow, everything in the hive is speeded up. The queen lays more eggs, the brood nest is extended, and the capacity of the nurse bees tried to the utmost. If warm, settled weather follows, all will be well; the hive's population increases, though at the cost of many hardy foragers. If a cold snap intervenes, the result may be serious. Inevitably, the cluster contracts, some of the outer larvae are left out in the cold, become chilled, and die.

A still more serious outcome remains to be considered. Through lack

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Some Wintering Ideas Re-analyzed

By John Conner

Dr. Phillips' "Fads in Wintering" in the November issue interested me very much. I have no quarrel with what he says. It is all good sound stuff, that should always be kept in mind. Further, I believe that those in apparent disagreement with him can find no basic fault in his conclusions. Differences are almost all over other factors not mentioned.

The Phillips-Demuth system (as I see it) is essentially a system of conservation. A **good** colony, with **good** stores, and **heavily** insulated will give **excellent** results. This can not be, and as far as I know, is not denied. That there **might** be another way is the guiding spirit of all progress, yet as I read Dr. Phillips' article it seems to be based on the fact that there can be **no** other way to good wintering.

Your symposium has met with great success among readers. The October issue is outstanding.

I am submitting herewith 15 facts concerning the matter, that might prove of interest.

1. The Phillips-Demuth system is about 25 years old.

2. It is on the decline, not because of poor results, but because "the human element" in actual practice did not, and in fact can not, always work with closely controlled conditions.

3. Omit only **one** of the requirements and the results would be but ordinary. This is why Dr. Phillips' system is condemned (even if wrongfully) by some.

4. The State of New York is probably the last stronghold in America for heavy winter packing.

5. Despite the intense educational campaign that has progressed there for a number of years beekeepers of the State of New York lost 75,000 colonies last winter (using Dr. Phillips' figures).

6. This should clearly indicate that beekeepers there, due to human weakness, are not using the best practices.

7. If this applies to New York State, where the heavy packing educational campaign has been so intense, how much more would this be true in states where no education has existed?

8. These losses indicate that beekeepers are still searching for a simple, easy, and satisfactory method of wintering. In other words the beekeeping fraternity has tried packing and turned it down for various reasons, hoping for something else.

9. A debate **does** get someone somewhere. The work of Phillips-Demuth is unheard of to thousands and thousands of beekeepers. Gleanings has been the only means of bringing any information on this topic to hundreds.

10. It is not only within the province of a monthly magazine but the duty of a progressive one to keep its readers informed of all phases of a subject until perfection is attained.

11. The top-entrance principle (true top-entrance with closed bottom) is not a substitute for packing. It can be used either with or without packing as desired.

12. In either case there will be no condensation within the hive and if the construction is correct there will be a minimum loss of heat and absolutely **no draft.**

13. This complete natural dryness of even an unpacked brood-nest might account for the many satisfactory claims made by so many for it.

14. Recent findings show a close connection between dampness and dysentery.

15. Colony condition (stressed by Hambleton) I believe is more important than generally realized when wintering (especially with bottom entrance) for the following reason, never mentioned before as far as I know: Moisture produced is in direct relation to the amount of honey consumed. Large clusters use less honey per bee, and often per cluster, than small clusters due to greater efficiency as a heat-producing unit when large. A large cluster also has greater ability to ventilate in winter. This combination accounts to me for the fact that good beekeepers have less winter trouble than bad beekeepers, especially as to dampness.

Caldwell, New Jersey.

Private Enemy No. 1

By H. W. Stewart
Past Secretary, Kansas State Beekeepers' Association.

Andrew Carnegie was once asked which in his opinion was the most important in achieving success—labor, capital, or brains? He replied by asking: "Which is the most important leg on a three-legged stool?" When we cast our eyes on the beekeeping industry, how many legs do we see? Some will doubtless say: "It's a one-legged stool". That is descriptive of the beekeeper who plants a sign, "Honey for Sale", near his premises, and hopes to vend his product to the passer-by. Others might say: "It's a two-legged stool", because successful beekeepers (who are relatively few, however) produce according to scientific principles, and package and peddle their own product. Still others may contend: "There isn't any other leg". This article is written to show the necessity for a "third leg" in the industry, without which, now or in the future, can beekeepers as a whole hope to prosper.

To state the problem more comprehensively: First, there are the experimental or laboratory services, rendered by individuals and organized agencies. Then come the commercial apiarists, producing honey by modern methods; and lastly the distributing function represented by well-organized selling associations. There stands the three-legged stool—an integrated industry.

The congenital absence of this third leg from our industry, naturally enough, perpetuates the evil. We frighten ourselves unmercifully in conjuring up what "foulbrood" is going to do to us; we look woe-begone when drouth or flood rob us of our hope and toil, never thinking of that monster enemy with a veil over his face and a smoker in his hand, walking complacently among his hives. This is the fellow that needs to be afraid of himself but never is. In beekeeping, man is the perpetual menace. Strange paradox it is, that unorganized beekeepers should keep on imperiling their own interests, if not unwittingly knocking the foundation stones from under their own habitations.

The truth of the statement just made depends upon the truth of two things: One is, that of all the business risks incident to beekeeping, the marketing problem—that advantageous method of disposal of the honey crop—is our "Private Enemy No. 1". Without argument, I believe the large majority of experienced beekeepers will agree with me on that point. The other is, that the present low price of honey, indifferent demand, discouraging outlook in our vocation, are owing to the absence of united action, smart advertising, organized "front", than to any other determining factors. I am going to try to show that this is also a true judgment.

First, let me apply the test of public esteem. It is an acknowledged fact that the great bulk of consumers, by custom and self-protection, are invariably found patronizing those self-respecting concerns where the overhead is high and prices up on the merchandise they carry than to hazard their hard cash on similar goods vended at the back door or offered for sale at junky-looking places. Somehow a sense of failure and incompetency crop out from even good intentions where a merchantable product has to resort to a back-door entrance, or where consumers are plied in a peddling process. Humility is all right in its place. It is nevertheless true that the transformation of an individual, a group, or an enterprise, rests upon some feeling of high calling or deep conviction of self-respect. As a psychological approach toward the solution of this part of our problem, this principle can not be over-estimated in the honey business. We stand in need of fostering a wholesome pride and self-esteem in our vocation. Now isn't it prosecuted with a more or less apologetic attitude? If ever we win the victory, it will be on that day when we present a united and aggressive front in the market place.

In the matter of mass opinion, I shall go a step further, and inquire of the 130,000,000 people in the United States for an answer to our problem. This sounds remote. On the contrary it is an inquiry as close to every one of us as our hands and feet. If we concede that 130,000,000 can answer a lot of tough questions,

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then let us look for our answer in the common behavior of this huge human organism: Here it is jostling us on every side: Corporate or group structure of industry, chain selling or allied merchandizing organizations, labor unions, advertising and propaganda, collective action in religion, education, clubs and societies, radio, press, political parties, government. One word helps in expressing the idea: integration. Indeed this very tendency at one time gained such gigantic proportions in some industries as to call forth anti-trust legislation in the public interest. The point I want to stress is that these integrating, cohesive tendencies in our social and economic life make the beekeeping individualist look like "the missing link" trying to do business on the streets of a metropolitan city.

Moreover, this development is wholesome and desirable. For, if it were not for this highly concerted action in industry, we should still be in the handicraft stage or worse—would not have in our homes any of the mechanical devices that lighten labor, promote comfort, protect health, and connect us not only with our domestic concerns but with the whole pulsating, struggling world. He who runs can read these signs of the times—convincing evidence indeed that the present archaic methods of disposing of our product run absolutely counter to prevailing trends. We are in a bad way now, and will continue to be up against it unless we fall in with the economic wisdom of our times. As Benjamin Franklin enigmatically remarked in a colonial crisis: **"We must all hang together or we shall all hang separately".**

Finally, let us ask the honeybee for an answer. In our work among the bees, collective effort is forever staring us in the face. She had her **co-operative** going before Moses led the children of Israel out of Egypt. What a teacher is *Apis mellifica!* At her place of business we stand in awe at the mutual service, division of labor, armed defense, economic foresight, provision for posterity, air-conditioning, thermostatic heat control, self-denial for the common good. Here is organization par excellence—instinctive wisdom—in comparison to which we beekeepers are the greenest type of business tyros.

Why say more? Evidence all about us confirms my plea. Even so, a sense of futility remains, for I am only one of those occasional voices crying in the wilderness, calling the "sinful" to repentance, and preaching the gospel of organized action in marketing of the honey crop. What I argue for will not bring them into union. Still, they shall be brought together—yes, driven into union even as was long ago the industrial slaves of oligarchic business—driven even as was capital into combination for greater usefulness and self-preservation.

Surely this is not an age of every one for himself and the devil take the hindermost. This is an age of group and guild interest wherein the individual member is protected and fostered by the power of his group. This form of action must finally be the only road that profitable bee culture can travel. And not until honey producers shall have deciphered the handwriting on the wall, or purged of soul by the vision from the housetop, shall they be fit for the industrial society of their generation.

Highland, Kansas.

German Government Recommending Honey for Wounded Soldiers

Dear Mr. Root:—

Enclosed is a copy of an article from FOODSTUFFS ROUND THE WORLD. I am sure it will interest all.

HONEY—Requirements Increase in Germany

Foodstuffs Division, Washington, 7/4/40. Honey is considered important in Germany especially during the war not only as a healthful food for children and the aged but also for its medicinal qualities.

For this reason the Reichs Organization of Beekeepers has been requested according to recent press reports, to increase the output of honey in order to provide a sufficient supply for wounded soldiers, sick persons, children and the aged.

German apiculture is said to have developed favorably during recent years, and the stock of bee hives now totals about 3,600,000 and the average honey yield per hive has been increased; the latter gain is attributed to the advanced culture of queen bees and said to show still greater possibilities.

A recent war measure specifies that German beekeepers are expected to attain a yield of three hundred kilos of honey per bee hive and to put their product on the market at a fair price.

Since the A.M.A. Food Committee failed to endorse your pamphlet "Honey as a Food and Medicine" it ought to give you satisfaction to see the attitude of the German Government advocating honey for wounded soldiers, sick persons, children and aged.—Dr. B. F. Beck, New York City.

The Season's Greetings!

Yuletide Goodies

By Mrs. Benj. Nielsen

How are those plans for the holiday season coming along? Do you have lots of honey confections on the list—flavorful honey cookies, tasty candies, and a luscious plum pudding or two? These are "musts" in the yuletide scheme of things.

Speaking of plum pudding, like the small boy, I've always wondered why this dessert is called a plum pudding, when nary a plum is to be found in its moist and mellow depths. As far as historians have been able to trace the recipe, there never were any plums included in the ingredients. The origin and history of this delectable dessert is indeed an interesting one. Woe be unto the hostess who does not serve plum pudding at the Christmas feast—such, we are told, is the superstition handed down from generation to generation in England; for it was there the plum pudding first came into being. That a friend would be lost during the coming year, if plum pudding were not served at the holiday dinner, was once a prevalent belief.

It is one of the oldest Christmas dishes still enjoying popularity; but since the first time an inventive cook served the fruited concoction to William the Conqueror, the recipe has changed so much that the original cook would scarcely recognize it. As it was first served it was a broth made of beef and mutton, thickened with brown bread and dried fruits.

The reverence with which the English people have held plum pudding is indicated by the fact that it was a traditional dish served at coronations up to the time of George IV. There is a difference of opinion as to what place it occupied in those long ago menus. Some proof shows that, in its early stages of popularity, this fruit broth was the opening course for dinner; other records show that it has always been a dessert.

Whatever its origin or history, plum pudding is still the highest ranking Christmas dessert among English speaking people throughout the world and we are quite content to continue the custom with our delightful honey version, of course. We'll steam several and store them for gifts, and against the time when friends drop in.

Why not bring that honey plum pudding to the table in the grand old traditional style—enveloped in mysterious flames? 'Twould be a glorious climax to the dinner on this happiest of all days! Simply use ordinary lemon extract; it has a liberal amount of alcohol, so that it burns readily and has a delightful aroma. Try it! Fill a large spoon with the extract, light it and pour it carefully over the pudding. Watch the childrens' eyes dance, and bask in the warmth of their delighted exclamations, when you carry it in triumph to the table.

It's a joy to know that we can make our honey cookies weeks ahead of the rush, store them away, knowing that when we are ready to serve them they will be fresh and good to the last crumb and chockfull of the inimitable flavor, which characterizes honey baked and aged cookies. And it's a joy to know that our honey candies will be creamy and smooth, even though not made just the day before. Do we appreciate the many advantages of this versatile sweet as much as we should? I wonder!

I wish I might play Santa Claus and hang on your Christmas tree a package of tantalizing honey goodies

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It's fun to make those delicious honey cookies.

from the Nielsen's kitchen. But since I can't do that, I give you the recipes for some of the best! And here's wishing, to each and everyone of you, a season of good cheer and good eating!

Honey Plum Pudding

One-half pound seedless raisins, ½ pound currants, ½ cup finely sliced citron, ¼ cup mixed nutmeats, coarsely chopped, 1¼ cups sifted flour, 2 eggs, 1 cup honey, (dark, stronger flavored honey is excellent in this) 1 cup sour milk, ¾ cup finely chopped or ground suet, ¼ cup fruit juice, 1¼ cups grated honey bread crumbs, 1 teaspoon salt, 1 teaspoon soda, ½ teaspoon ginger, ½ teaspoon cinnamon, ½ teaspoon nutmeg, and ½ teaspoon cloves.

Rinse raisins, currants and citron; drain well. It is important that the fruit be dried well. It is a good idea to dry them on a towel. Beat the eggs until light and fluffy, add honey, sour milk, suet and fruit juice. Stir in the bread crumbs. Sift the flour; measure and dredge the fruit with 1 cup of the flour. Sift remaining flour with salt, soda and spices. Stir into egg and honey mixture; add dredged fruits and the nutmeats. Stir until the fruits are evenly distributed. Pour into a large mold which has been well greased. A 3-pound mold is about right. Cover and steam for 3 hours. Allow to cool thoroughly. Wrap in heavy waxed paper and store. Serve with

Honey Hard Sauce

One-third cup butter, 1 cup honey, pinch of salt, ¼ teaspoon cinnamon, ¼ teaspoon grated orange rind and ¼ teaspoon vanilla (optional).

Cream the butter thoroughly. Gradually add the honey and continue creaming until very light. Stir in salt, cinnamon, grated orange rind and vanilla.

Christmas Plum Pudding

One cup milk, ½ cup seeded raisins, ¼ cup currants, ⅔ cup dates, 1 square unsweetened chocolate, ⅓ cup honey, ½ cup cold water, 1 tablespoon Knox Sparkling Gelatine, ¼ teaspoon salt, ¼ cup nutmeats, chopped, ¼ teaspoon vanilla and 2 egg whites.

Put milk with chopped fruit in a double boiler. When cooked slightly, add the chocolate, which has been melted and mixed with part of the honey and a little milk to make a smooth paste. Soften the gelatine in the cold water. Add to the hot chocolate mixture and stir until dissolved. Add honey and salt and mix thoroughly. Remove from fire, cool, and when the mixture begins to thicken, add nutmeats and vanilla. Lastly fold in the stiffly beaten egg whites. Turn into a mold that has been rinsed in cold water. Chill. When ready to serve, unmold on large white plate, garnish with holly and serve with honey-sweetened whipped cream.

Spicy Fruit Whip

One cup honey-sweetened cooked dried apricots or prunes, 1 cup of the fruit juice, 1 tablespoon cornstarch, few grains of salt, ½ teaspoon cinnamon, ¼ cup honey, 1 tablespoon Knox Sparkling Gelatine, 3 tablespoons cold water and 1 cup whipping cream.

Cut the fruit into small pieces, add fruit juice, cornstarch, salt, spice and honey. Cook slowly, stirring until thick and the cornstarch is cooked. Remove from fire and add the gelatine, which has been softened in the cold water; stir until dissolved. Chill. When mixture begins to thicken fold into the cream which has been whipped until thick but not stiff. Chill thoroughly. Serve with honey-sweetened whipped cream.

Honey Cookies

(Let Dough "Ripen" at Least a Week Before Baking)

One-third cup butter, ⅓ cup brown sugar, ½ cup honey, 2 cups sifted flour, ⅛ teaspoon salt, ½ teaspoon soda, ½ teaspoon cinnamon, ¼ teaspoon mace, ¼ teaspoon allspice and ¼ teaspoon nutmeg.

Melt butter, add brown sugar and honey and mix well. Sift the flour; measure and resift with salt, soda and spices. Add to first mixture, mixing well. Cover and let stand a week or more, in a refrigerator or other cold place. Roll dough out very thin. Cut in stars, crescents, Christmas tree, or wreaths. Place on greased cookie sheets. Bake in a moderate oven.

Frosted Gingerbread Bars

One-fourth cup butter, ⅓ cup sugar, 1 egg, ½ cup honey, ½ cup Kellogg's All-Bran, ½ cup strong coffee, 1½ cups sifted flour, ¼ teaspoon soda, ¼ teaspoon salt, 1½ teaspoons baking powder, ½ teaspoon cinnamon, ⅛ teaspoon ginger, and ⅛ teaspoon cloves.

Blend butter and sugar thoroughly; add egg and beat until light and fluffy. Stir in honey, All-Bran and coffee. Sift flour; measure and re-sift with soda, salt, baking powder and spices. Add to first mixture. Beat until smooth. Pour batter in greased pan and bake in a moderate oven, 350 degrees F., for about 30 minutes. Frost cake with uncooked frosting as soon as it is taken from the oven. Cut into bars.

Christmas Charlotte Russe

One large angel-food cake, 1 dozen marshmallows, 1½ dozen candied cherries, ½ dozen stale macaroons, or honey-flavored graham crackers, 1 tablespoon Knox Sparkling Gelatine, ¼ cup cold water, ¼ cup hot apricot or unsweetened pineapple juice, ½ cup honey, 2 cups whipping cream, 1 teaspoon vanilla and green gumdrops.

Remove the inside of the angel-food cake with a sharp knife, leaving a 1-inch wall and bottom. Cut the marshmallows and candied cherries into small pieces. Buttering the scissors will prevent marshmallows and cherries sticking to them. Crush macaroons or graham crackers. Soften the gelatine in the cold water and add to the hot fruit juice. Whip the cream until it begins to thicken, add honey gradually; add vanilla. Gradually drip the honey cream mixture into the gelatine mixture, continuing to beat until stiff. Fold in marshmallows, cherries and macaroons. Turn mixture into angel cake, piling any surplus on top of the cake. Wrap in heavy waxed paper and chill thoroughly. When ready to serve garnish with bits of cherries and green gumdrops arranged in a Christmasy holly wreath.

Chocolate Divinity

One and ½ cups brown sugar, 1 cup maple syrup, ½ cup honey, 2 squares unsweetened chocolate, ¼ cup water, ½ teaspoon salt, 2 egg whites and 1 cup broken nutmeats.

Boil sugar, maple syrup, honey and water for 5 minutes, covered. Remove cover and boil until mixture reaches 250 degrees F., or when a hard ball forms if a portion is dropped into cold water. Stir the mixture constantly during the last part of the cooking. Add salt and chocolate, and when chocolate is melted pour gradually over the stiffly beaten egg whites. Add nutmeats and continue beating until the mixture will hold its shape when dropped from a spoon onto a greased pan or heavy waxed paper.

Honey Peanut Brittle

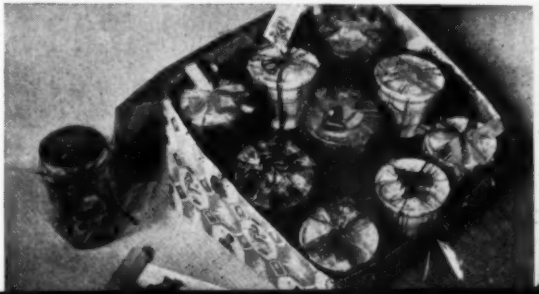
One and ½ cups peanuts, shelled, ¼ teaspoon salt, 1 cup sugar, ½ cup honey, ⅓ cup water, 1½ tablespoons butter, and ½ teaspoon vanilla.

Sprinkle the nuts with the salt and warm in the oven. Combine sugar, honey and water in a large saucepan. Stir as it cooks, until it begins to thicken. Then wash down sides of the pan with a wet pastry brush, or with a clean, wet cloth wrapped around the tines of a fork. Cook without stirring until a few drops of the mixture forms very brittle threads when dropped in cold water. Add butter, flavoring and toasted peanuts. Pour quickly onto shallow buttered pan. Stretch out as thin as possible. When cold break in pieces.

Honeyed Rice Krispies Balls

Three-fourths cup honey, ¾ cup sugar, ½ cup water, ½ teaspoon salt and 2 packages Kellogg's Rice Krispies.

Combine honey, sugar, water and salt in a saucepan and cook, stirring until the sugar is dissolved. Boil until a temperature of 300 degrees is reached (very brittle). Add the honey slowly, stirring until blended. Cook again until thermometer registers 240 degrees F. (about one minute). Pour over Rice Krispies. While hot drop by spoonfuls into buttered cups or muffin tins, or form into balls. The mixture may be pressed into buttered pans and when cool cut into bars.



An assortment of choice honey jam and jelly in gay holiday wrappings make a most welcome gift.

Hungarian National costumes; always worn at the time of carnivals and autumn fairs.

Along the Blue Danube

By James T. MacMillan

Karolyi is an old acquaintance of ours. He serves the best chocolate ice cream soda here in Little Hungary, that fringe of Magyar speaking people to the south of New York's German settlement. Another of his noteworthy accomplishments are mouth watering honey nougats.

We might yet be ordering sodas and buying nougats from the impassive Karolyi, and all in ignorance of the man's other self, had it not been for a little war. Not the international conflagration, but a private war between my wife and a nasty, overbearing colony of blacks. She retired from the field in disorder. The retreat went as far as Karolyi's where we stopped through habit that summer evening on our return to town.

"Good evening. Black and white as usual?" queried Karolyi. Then noticing the swelling Dot had acquired, "Stung by a bee?"

"No, just a wasp", I lied quickly in defense of the much maligned honeybee.

"Looks like the effects of a honeybee sting to me", he retorted smiling.

Sharp differentiation like that, and only a mile from the Main Stem, Broadway, is unbelievable. Hornets are bumblebees and wasps are honeybees or anything else to almost everyone I've spoken to south of the Harlem River. Talk about races, Carniolans or Italians, and most people smile politely at a spot two feet over your head. You may not be crazy but certainly are eccentric.

"Aren't they all one big happy family and woe to the chance trespasser?" I asked tentatively.

"Oh no!" he exclaimed. "Excuse me," turning to take an order from a new customer. That taken care of, he returned, a smile of some warmth widening his face.

"To tell the truth, I noticed some propolis adhering to both your finger nails."

"They are pretty much alike anyway," I persisted, hoping to draw this Sherlock Holmes into a discussion. I did.

"Honeybees are humanities most valuable natural aid," he started off, and there followed a learned exposition of much we all know, or should, concerning our allies. All this was too much for our now overburdened curiosity. A fellow like this in the very heart of our greatest city as a soda jerker. Womanlike my wife beat me to the opening of the barrage of questions. She admitted we were beekeepers ourselves.

"Where did you acquire all this knowledge?" she wanted to know.

"Two places," smiled Karolyi, energetically swabbing away at the marble counter top. "From the head gardener of the Archbishop's Palace in the State of Pest in Hungary, and in a course in beekeeping and hive building sponsored by my home city of Kalocsa, not far from the banks of the Danube River. Both were quite thorough."

"So it would seem."

From recent political history I knew that Hungary was termed the Granary of Europe. Other than that, and Germany's intense interest in this country once a proud part of the Austro-Hungarian Empire, I knew nothing, but was curious. One could see that he was proud of his Magyar

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heritage and needed but prompting to tell us the story of Hungarian beekeeping.

"So you come from the fertile Valley of the Danube. Tell us something about the country", I begged.

"The old country is a fair land," he began, "not unlike the middle west in fertility and physical contour. But in many places there are forest preserves, white, yellow, and even purple locust, acacia groves. Basswood. We call that one, lime tree and often linden. There is a vast plain, the Nagy Alfold, where are born the cowboys of Europe. We, the Magyars, are a race of horsemen and farmers. Nowadays there is much movement by the military cavalry. The people do not like it but there is nothing one can do or say".

"What are your beekeepers like", interrupted Dot.

"Well, they are what you would call hobbyists. A great number of the peasants keep a few hives as much for pleasure as profit. Mostly for the honey, though. There are many farms with bees but only a few with more than 50 families. You call them colonies. The farmers with many colonies sell the honey at the great Autumn fairs.

"The Archbishop has a unique stone bee house containing over 150 families, and a separate extracting room. Each family has two hive bodies containing nine frames each running the same way as the entrance which is through the wall. The frames are seven by nine inches.

"Surplus honey is taken from the top body. As quickly as a frame is sealed over it is removed to the extracting room and another put in its place. The beekeepers work, of course, inside of the building using both pipe and clockwork smokers. At the season's close all families are fed sugar syrup from inverted wine bottles whose necks are stuffed with absorbent cotton.

"Whenever the head gardener sold a family, six or eight visits, a comparison of notes, and advice, was included in the price of the bees."

"What a delightful custom," I thought.

"Dot, always practical, wanted to know what the chief honey plants were, the size of the crop, and the prices at which honey sold.

"Similar to this country," he answered. "Basswood, locust and clover all yield a surplus. Vetch, sainfoin, dandelion and the corn flower are important. Alfalfa yields after the first cutting in some seasons. Usually beekeepers are well satisfied with a 40-pound crop. Good apiarists often top 100, rarely getting as high as 150 pounds. The Archbishop's gardener tried migratory beekeeping. He moved the families down the Danube by boat and wagon three times in one year, but with no increase in crop."

Our conversation continued, broken here and there by the entrance of new customers. It developed that Karolyi had met Karl Mathy, famous European beekeeper-teacher. Now

(Continued on page 782)

Central European beekeeping school

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From the Field of Experience

BOLIVIAN BEES BUZZING

Everett M. Warren

From away down in Cliza, Bolivia, Mr. L. M. Shedd has written us a short but interesting letter, mentioning a few things about beekeeping in his part of that country.

Cliza is just about as far south of the equator as Mexico City is north, and the climate is such that brood-rearing goes on throughout the entire year—at least in colonies which can be manipulated.

At the present time about 95 per cent of the bees are kept in old-fashioned gums, but increased interest is being manifest in the bee business and the influence of a few modern hives here and there will gradually be more noticeable.

The chief sources of nectar are alfalfa and eucalyptus, the latter blooming for about four months of the year and yielding honey of a delicious flavor. Peach bloom is abundant, and there are many wild flowers when the rains come. Bees did not find it necessary to draw on their stores the past "winter".

Mr. Shedd keeps his bees as a loved and profitable hobby, and has recently imported and safely introduced a number of Italian queens from the United States. In June, the coldest month of the year down there, he raised a very nice queen.

Medina, Ohio.

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THOSE THREE QUEENS AND QUEEN CELLS

Bro. Stephen Babek

Our bee hives are arranged in groups of four, placed on low tables spaced about three feet apart as shown in October, 1939, issue of Gleanings, page 623.

Early last spring one colony was very quiet while all the others were active. On examining the hive I found them queenless. Some two weeks later I found two queens in the neighboring hive across the three-foot space, and these were in the same brood chamber. The queenless colony already had another queen so I left the two together. Their clipped wings showed their even age.

Later I elevated the brood to the fourth story to prevent swarming. At this operation I saw the two queens about four inches apart on the same comb apparently taking no notice of each other. These bees, now in the top story, reared a third queen that mated through the top entrance and started laying.

On my next examination I found several sealed queen cells in the lower brood chamber, and the bees did not swarm in spite of the nice weather.

The young queen on top was a worthless hybrid, nearly black. As I had no time to watch and experiment further, I removed all three queens and cells and later introduced a young laying queen.

The queenless hive had a queen at the last examination. Had she deserted her hive and entered the other? In mid-winter of 1937-'38 I had a queen come out of a hive. The first time I put her back. A few days later she came out again and chilled to death. I think that this colony was too weak for good wintering, but such was not the case with the queenless colony mentioned above.

Subiaco, Ark.

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BALTIMORE ORIOLE DESTROYS BEES

Andrew J. Krueger

I quite agree with John Conner (August, page 501) that the kingbird is a menace to beekeepers. Often I have seen it line up its young on a limb, then swoop down, catch the bees on the wing, then carry them up to feed the young, but so far I have not been able to ascertain if it eats the whole bee or only the honeysac, swallowing only an occasional one which would account for so few bees being found in the stomachs of examined birds.

The Baltimore oriole, which is by far the worst menace here, does this very thing. It comes around early in the morning, hopping from hive to hive, scratching and picking at the entrance till the annoyed bees rush out. These are promptly picked up,

their abdomens crushed and the honeysacs eaten. During a heavy honey flow, when the bees come in heavy, dropping in front of the hive, the oriole is on the job again, reaping a rich but cruel harvest. It is certainly not a pleasant sight to see so many maimed bees crawl away to die a miserable death.

Altona, Manitoba.

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CENTRAL EXTRACTING PLANTS IN THE SAN JOAQUIN VALLEY

Lee H. Watkins

In reference to your editorial on page 231 of April Gleanings and your supplementary article on the following page, I beg to say that you are mis-informed when you state that central extracting plants are not in vogue in the San Joaquin Valley. Practically all the large beekeepers in the Valley have central extracting plants, having discarded their portable outfits many years ago, except for minor jobs. It is certain that whenever portable outfits are still used it is **not** because of the extreme heat.

We are the largest beekeepers in Fresno County, and for more than ten years we have hauled our honey to a central extracting plant, over all kinds of roads, during the hottest part of the summer, and have never lost a comb from the heat. I do not know where the idea originated that it was impossible to haul honey at 110 degrees in the shade, or when it was 130 degrees in the sun. We cover the honey with gunny sacks and ordinary beehive lids, and rope the supers down. We have hauled honey this way, many times a hundred miles or more, without loss; and only a small percentage of our combs have wired foundation. Perhaps the combs melt down in San Bernardino County, but you specifically mention San Joaquin Valley also. We operate in one of the hottest parts of the Valley and do not experience the difficulties of which you write regarding the extreme heat.

Clamps for Holding Bee Hives of Questionable Value

As for the various types of clamps to hold beehives together, they are all totally useless, and are nothing but trouble and expense. We are going into our fourteenth year of moving bees without the use of screens, cleats, staples, nails, or clamps of any description. All that is necessary is to smoke the bees, set the hives on the truck and rope them down. Because of the propolis glue there is seldom a super that slips, and it does not matter if one does, as the bees are quiet when their entrances are left open.

Some California beekeepers ape the various practices of the middle-Western beekeepers, when, if they would face their own problems, they could many times reach a better solution for their particular set-up. Many beekeepers still leave their hive bottoms loose. We keep ours nailed on. Sometimes in manipulations it is more convenient to have them loose, but even when Demareeing it is necessary to take out the brood to find the queen; so we simply put the empty super at the back of the hive and set the examined brood into it. By the time we find the queen most of the brood is in the super. We set the balance in, fill the brood chamber with empty combs and set the super on. Since we move bees five or six times a season, nailed bottoms are definite time-savers. As swarming is not quite so serious a problem here as in the middle West we use a modified Demaree method most of the time, which is simply to gas the queen and bees down to the brood chamber and then put on the excluder. This saves time and prevents a lot of swarming.

Top Supering for Thirty-five Years

Some thirty-five years ago we learned that top-supering was less labor and resulted in as much extracted honey. But there are still beekeepers here who believe that bees will not go into top supers, not realizing that the conception of bottom supering developed from comb honey practice. I am now busy showing them your 1940 edition of the A B C and X Y Z of Bee Culture where you advocate top-supering.

Selma, Calif.

[The Senior Editor did not go into the San Joaquin Valley but supposed the conditions of extreme heat and desert roads were the same as in the Imperial Valley, California, and the Salt River Valley, Arizona, where the portable extracting outfits are used almost exclusively. The desert roads in these valleys are rough and sandy interspersed with gopher holes that will let a truck wheel settle down with a hard jolt. This would break combs.

We are glad to get your experience on top-supering. Apparently you are one of the pioneers in the method. We are sure it will give just as much honey with a lot less labor. The only time when supering under may be advisable is when bees have got into the swarming mania.—Ed.]

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DO OWLS CATCH BEES?

C. H. Huey

Some people claim owls do catch bees because they have seen them in apiaries where hives are boiling over with bees. They figure that an owl will perch on a hive and snap up the winged honey-gatherers. Especially in an apiary located in a swamp one may find an owl, with great dignity and sternness, looking over his bee hives—but one shouldn't be too worried about that. I have never found proof that owls eat bees and I wonder what proof, if any, has ever been found?

From my experience and observation owls frequent an apiary in search of mice and other rodents. Therefore I consider them really friends of beekeepers. An owl, with its strong talons, can trap the wary mice. A flick of the sharp talons and a mouse is torn to pieces. There are other things they feast on that are much more of a nuisance to the beekeeper.

Above is a picture of what some people call the laughing owl. This one was captured in the Okefenokee Swamp. It is easy to see that this would be a splendid guard for the bee hives. Therefore, I conclude that an owl is a friend, a guard, a hunter, and destroyer of rodents and things destructive to the bees. Perhaps we should say, "Welcome to the bee yards".

Waycross, Ga.

THE VOICE OF EXPERIENCE

Timothy O'Donnell

There are many complaints about honey going so slowly while we in Chicago are hustling orders at this time of year. Since August 8 (this is September 6) I have sold $84.50 worth of honey in quarts and pints—40c for a quart and 20c for a pint. Several gallons have been ordered for colder weather. I don't as a rule start to sell before October but the demand caused me to start earlier.

By next March or April I expect to have disposed of over a ton of honey.

The lack of beekeepers in Chicago is amazing. I don't think there are enough beekeepers to handle the population of 3½ million people. I can see miles of clover, white and sweet and some alfalfa, with no bees to harvest the crop.

This is my 32d year of keeping bees. My father gave me a hive on my 20th birthday and I've been at it ever since. I pay $15.00 a year for one acre of land adjoining woods with a river close by. No other beekeeper has ever intruded on my territory. I never have an ounce of honey left over after spring starts in. I work as a street car conductor at 80c per hour, and my bees are a side line.

Chicago, Ills.

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CAUSE OF WEAK COLONIES IN SPRING

By H. J. Rahmlow

In the September issue of Gleanings we noticed a question asked by one of our leading commercial honey producers which seemed to us to be very important, considering the answer does not seem to be well understood.

The writer states that he purchased package bees and that they did well aside from a number of failing queens which put some colonies back at a critical time. He installed the packages giving two combs of honey. These package bees were among the best if not the best in his yard.

He asks the question, "We hear a lot about giving pollen combs to stimulate winter brood-rearing, but here these bees started from scratch in late April and were stronger than well wintered colonies by July 1. Some one please explain".

Let us look into this matter carefully. Obviously if the package bees did better than over-wintered colo-

nies, then the over-wintered colonies didn't do as well as they should have. In other words, the packages were good but the over-wintered colonies were not good.

Why didn't the over-wintered colonies do better? Dr. C. L. Farrar of our Central States Bee Laboratory, called our attention to the lack of pollen last fall, and that many colonies went into winter without much pollen. What happened? There was some brood-rearing in the fall during which most of the pollen available to the cluster was used up.

Along about February 1 last winter, the queens, if normal, started laying eggs. We know this is true because it has been observed many times. A few of the eggs were hatched and a little brood was reared from whatever pollen was available or from the body reserves of the bees. In a few weeks, however, with no pollen available, the bees stopped hatching eggs and raising brood. Of course, as the bees uncovered new stores of honey they may have found a little more pollen and raised small amounts of brood, but it was not enough to build up the colonies.

By the time pollen was available from the field in spring, most of the bees in the colony were old. Such bees are not the best to raise brood. There is much spring dwindling among them because on cold days these old bees fly out and never return. Gradually the colonies weakened and by the last week in April when the packages were received they were in poorer condition than were the young bees which were shipped in from the South. Consequently they did not build up as rapidly as the packages.

Now what would have happened if the colony had had several frames of pollen available during the winter? Late in January or early in February brood-rearing would have started. With pollen available the eggs would have been hatched and the larvae raised to maturity. Late in February and during March there would have been daily emergence so that by April 1st the colony would have had a good percentage of young bees. Then as the old bees "dwindled" the colonies still would not have become weakened. These young bees would have raised brood rapidly during April if there was plenty of honey and pollen available, and by the time the packages came such colonies would have been strong.

Now the above is what happens in normal seasons. There are seasons, of course, when something unforeseen happens and this spring many beekeepers reported weak colonies due to disease. There were several cases of paralysis and *Nosema*.

We have come to the conclusion that weak or failing colonies are not worth keeping. If we find colonies with paralysis they are immediately destroyed with cyanide.

Madison, Wis.

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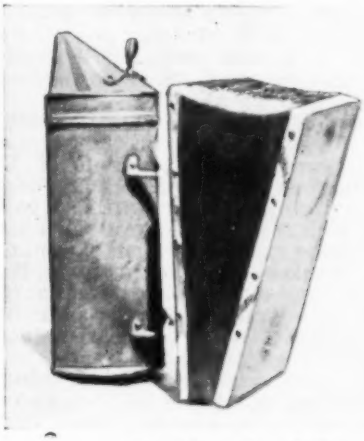
COVER FOR SMOKER BELLOWS

William H. Hargett



An old smoker bellows can be made whole and useful again by a little ingenuity.

If the cover on your smoker has become worn and needs replacing, you will find auto-top material most practical to use for this purpose. This leather-like material is strong and durable and can be bought at almost any auto parts' dealer or department store. If you don't have any small pieces left over from a top-covering job, it will be economical to buy a piece for this special purpose, as it is sold in small pieces for patching tops.

When cutting the material, use the old bellows cover as a pattern and cut around it. If the metal binding around the bellows is too badly corroded with rust, cut a new one from scrap tin. Cover the edges of the bellows boards with glue or cement before tacking on the new covering.

St. Louis, Mo.

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SECOND GLANCES

C. M. Isaacson

Look again at the hive in the foreground of G. A. Pauli's fine cover picture for November. The lower brood chamber seems to be composed of two comb honey super shells —aptly illustrating the decline in comb honey production in recent years.

Any new set of theories needs a jolt or two to help shake out the undesirable portions. E. F. Phillips' article (page 673) does just that for (and I mean "for"—not "to") the "new orthodoxy" of wintering. In his criticism of the upper entrance, however, he overlooks its main advantage to my mind; which is **not** moisture elimination, but a clog free, weather responsive exit. (I doubt the advisability of a dual entrance in colder regions—too much strain on the bees' heat producing ability.)

His arguments against winter brood-rearing are good, the more so when coming from a man of Dr. Phillips' experience and knowledge. The amazing surge forward of a colony which is broodless until spring, is something that I, and I am sure many other beekeepers, can testify to. It is honey flow strength that counts, not early spring numbers (even assuming that winter brood-rearing produces them).

His concluding argument is also a convincing one, the present spread of commercial beekeeping has come about mainly under the so-called old orthodoxy. As the Editor himself says (page 703), "try out the new on a small scale".

"Pollen by the Bushel" is an interesting article (page 679). Just two questions:—Is the collected pollen hard to keep? And is its collection by special equipment profitable? The colony shown in Fig. 4 is a fine one, but how much of its strength is due to the extra pollen, how much to other factors (two queens, for instance)?

J. F. Norgren delivers a telling point in favor of his metal cover top entrance as opposed to boring a hole in the hive body—the latter does seem mutilation of equipment; and when supers are interchanged, can cause trouble later. His entrance is simple to construct and seems to have several advantages over others.

Among all the articles on the various methods of wintering, it is well to have a conservative summary including the more generally accepted parts of all. In the main, the article by Grant Morse fills this need (page 684). His mention of late fall feeding of sugar syrup brings up a practice not generally recommended now, but one which several careful and successful beekeepers **do** use.

That EFB is a deficiency disease, in part at least, sounds logical (page 689); it would help to explain its severity in the spring period. I have often felt somewhat the same way about sacbrood. Cold spells which often come in spring weather may also be a contributing factor in lowering larvae resistance.

Those are interesting facts given by J. T. MacMillan (page 691). Bees and honey have certainly been prominent in recorded history, and these items serve to impress this firmly upon us.

Don't place too much reliance on those neglected hives that survive unpacked and uncared for. I don't mean to cast any doubt on Mr. Tontz' report (page 693); but remember, the many neglected apiaries that do **not** live through are not reported. They are not news. I know of at least a half dozen small beeyards that "went west" for lack of care. The methods that have proven successful in the **majority** of cases are still best to follow.

That is a neat looking pack described (and pictured) by Walter Schleiden (page 695). It is easy to apply and should give considerable protection—Celotex is a great heat retainer.

The admonition against price cutting is one to be taken heed of (page 702). The editor is certainly correct, it leads to loss for everyone and leaves the producer holding the bag. When the beekeeper himself indulges in it, it is even more inexcusable.

I am inclined to agree with Spinster Jane (page 712) in opposing the killing of the bees in the fall, to be re-stocked next spring. Perhaps it would be the practical thing to do, but somehow it doesn't seem right. They should have their chance for survival; as she says, the misfortune was no fault of theirs.

It is good to read that the American Honey Institute is on a sound financial basis, but that does not mean that we can even temporarily withhold our support. Remember, the more we contribute, the more they will be able to accomplish for us.

Middle River, Minnesota.

Spinster

Jane Says;

Christmas draws near again, so says our calendar, and it doesn't lie, yet it doesn't seem possible. We have had such a queer, out-of-the-ordinary year! And yesterday and again today it is raining. Roads are muddy and bad everywhere. Some folk affirm the rainy weather must be due to the excessive bombings over in Europe, but this theory is easily exploded, else why the drought and dry wells in other parts of Ontario.

We surely can chalk up our first real failure with bees against the 1940 season.

Sentiment (some call it) won out against hard theory, however, and our bees continue to live. We took off no honey whatever, this year, except a bit of comb honey early in the season. We left the entire store with the bees, let them live or die. Never before in our experience, has there been such a bad year for beekeeping here in the North. And are we discouraged? Decidedly, "No"! Does a writer quit upon receiving one rejection slip? One eminent writer states he received enough such to paper his room, before achieving success, and only determination and perseverance will bring success. Next year we may have a bumper crop. "Hope deferred" must not make our "hearts sick" in spite of Solomon's proverbs.

Canadians were all agog over your Presidential election. Both men had sound platforms, it seemed, but your people decided to place their trust in the man who had served them and who has kept out of the European war.

As Christmastide draws near, we think of the countries which war has already devastated, and of the little children there who will fare poorly, if at all, on what was always to them a time of joy and feasting. We think, too, of our own King and Queen, staying side by side with their poorest subjects, keeping their children with them, as the poor must do, throughout the noise, danger, and horrors of awful bombings. We sing our national anthem in a new way. It has become an earnest prayer.

November has brought heavy frost, cold winds, and colder weather, but bees, luckily, had a few fine days in which to fly, and they took full advantage of those days. Soon they will be put in their winter quarters in the cellar, where in the "black-out" they, too, will hold together until brighter days.

I am debating whether or not to feed my two colonies. We haven't weighed them yet, and their weight must decide the question. Sugar is cheaper than losing bees, and I value them too highly to take any chances.

One of our worst nuisances, a skunk, hung about, hiding eventually under our new extracting-house, no doubt planning many a delectable feast upon our bees. But we fooled him. The dog found him and chased him to cover. The honey-house, being small, was pried up, and his skunkship ignominiously destroyed. Two of our girls. and John, himself, sat upon the pry while the shooting was done. The skunk, though shot, made a dash for freedom, coming the girls' way. Both shrieked, and jumped off the pry, and John was thrown rather high,—not the first time he was up in the air, either, more ways than one.

The girls reached the house just in time to greet the minister and his wife, come to call. "Of necessity", they said, "our call must be short". But I wonder!

And now, may I wish all, both staff and readers, a Merry Christmas and a peaceful 1941.

May the Christmas message, given the amazed shepherds, many years ago, soon come to us,—"Glory to God in the Highest, and on earth, peace, and good will to all men".—Spinster Jane.

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Definitions for the Beekeeper

Archives—where Noah kept his bees.
Stinger—self-expression of a bee.
Bee-in-the-bonnet—That's where a man gets stung for a woman's hat.—Mrs. H. B. Kohr, Wichita, Kansas.

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American Honey Institute News Notes

Now that election is over we can all settle down and give our assistance to the government in providing an adequate national defense. What is "National defense"? Is it airplanes, battleships and munitions or is it more than that? The best asset of any nation is perfect manhood and womanhood, perfect physique plus sound minds and high spiritual values. These can be encouraged and improved by correct nutrition. So let's give more attention to our diets these days. You men, who eat your lunch out can learn to choose more wisely. Each day I sit on the balcony of a large cafeteria and eat my lunch. Here I can look down on the plates of hundreds of workers. I am sometimes shocked at what foods some select, expecting from it to renew broken down tissues and furnish energy for the afternoon's work.

One lunch I saw yesterday was scalloped macaroni, hard rolls, cake and black coffee. Compare this to broiled liver, buttered carrots, baked potato, glass of milk and a fruit cup. The first man provided only for his energy requirements. The second man has energy food in plenty, minerals for bone and muscle repair, vitamins as required to prevent the onslaught of many a disease which may take a hold without this foresight. Always keep in mind "Food is cheaper than the doctor". Study the family diet.

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How is your honey going to market? Is it all dressed up to attract the visitor's eye? Is it clean and shiny, in a nice shaped container with an attractive label? Is it right out in front on the shelf or counter or is it tucked back in the darkest corner "unseen and unsung"? One of the big industries of this nation trains their salesmen upon entering every store to first locate the proprietor. If he is busy, the salesman immediately steps to the section of the store where his products are on display. He dusts and shines up every bottle and jar. He cleans up the shelves. Then he rearranges his complete line bringing the old stock to the front and leaving the spaces behind for the order he hopes to get as soon as the proprietor is free to give it to him. Thus he helps the storekeeper and at the same time keeps his own product moving. Good idea, don't you think?

Choose a container that does not tip over easily, one that can be used about the kitchen daily. Sometimes the container makes the first sale. Have a container that looks well on the display shelf. Choose a label that harmonizes in color with your honey. Choose one that harmonizes with the container in shape. Buying, like eating, is affected by the eye, the touch, the smell, and the taste.

Put up placards suggesting uses for honey. Many people do not know how good honey is on cereals and fruit, and for drink it is the sweetening supreme.

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Have you noticed the tremendous publicity honey has received this year? Too bad we can't all read all the newspapers and magazines and hear all the radio programs!

General Foods sent out a special release of honey recipes to 1000 food editors of newspapers and radio stations for National Honey Week. Papers and magazines all over the country used some of this excellent material.

Just this week the State Department of Agriculture of Massachusetts sent us their release on honey. They got out a delightful little booklet on honey which was distributed by their department. Massachusetts as you know is not one of the greatest producers of honey, but is interested in bees because of their pollen carrying value.

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Science has provided many short cuts for this ever speeding world, the airplane for travel, the radio for quick spread of news, the zipper for quick closures, the permanent wave for quick grooming, and now the capsule or concentrate for quick and convenient nourishment. The capsule has come to be used to provide a restoration of waning energies for the athelete, the soldier, or whosoever may be taxed beyond the endurance provided by the last meal. Why not have a capsule of honey? This would be a convenient way to dispense this product so packed with a quick energy supply.

Bee, bee, buzzing bee
The world without you
What would it be?

Our Guest Book

Harold A. Braham

A recent visitor at Medina was Mr. Harold A. Braham, a government representative of the Division of Marketing in Jamaica, whose headquarters are at 1A Ballater Avenue, Half-Way-Tree, Jamaica. He visited Canada, called on Dr. Phillips at Cornell University, Ithaca, N. Y., and stopped off to see us at Medina, after calling at our office in New York City. He is here to study beekeeping conditions in America and carry back information to his own country. He was much interested in what he saw, and while here we took him down to the queen yard (where the picture opposite was taken) to talk with our Mr. Mell Pritchard, who is recognized not only all over the United States, but also all over the world as a man who has developed modern methods of queen-rearing. The fact that his methods are followed throughout the South is good evidence that these methods are correct, if we may judge by results.

Woodrow Miller

The picture opposite is that of Mr. Woodrow Miller, of the famous family, N. E. Miller and Sons, of Utah, Arizona, Nevada and California, with headquarters at Colton, California. The business gradually grew until the number of colonies owned and operated was over 20,000, and the crop in several seasons reached a million pounds and over. The senior Mr. Miller, who passed away recently, had his ups and downs, but the business is now on a firm footing, with the junior member of the firm, Mr. Woodrow Miller, as active salesman. The Mr. Miller here shown is just as fine as he is good-looking.

For a full account of the activities of N. E. Miller and Sons, reference is made to the September issue of Gleanings, pages 545 to 549, inclusive.

Now that the market seems to be growing firmer, Mr. Miller was doubtless wise to hold his honey for higher prices.

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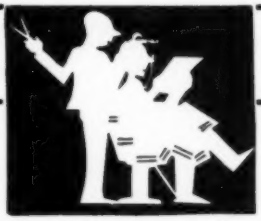
Just News



The annual Beekeeping Short Course given at the University of Manitoba, will be held from January 20 to 31, 1941. With stocks low, prices good, and odds in favor of a good crop in Manitoba next summer indications are that there will be considerable interest in the course. A good attendance of beekeepers who are anxious to "keep bees better" will insure an interesting and profitable time in the lecture periods and discussions of beekeeping problems. The course is presented chiefly by Professor A. V. Mitchener and E. C. Martin of the University, and Mr. L. T. Floyd, Provincial Apiarist. There are also especially valuable lectures from other people connected with the honey industry or the University staff. Application for the course should be made to Dean A. V. Mitchener, Faculty of Agriculture and Home Economics, The University of Manitoba, Winnipeg, Canada. Full information on facilities for board and room, tuition fee and outline of short courses may be obtained by writing to Dean Mitchener.

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The Middlesex County Beekeepers' Association will meet at 19 Everett St., Concord, Mass., on Saturday, December 28th at 7 P. M. Mr. Fred Russell of Chelmsford will speak on improvement of nectar sources. Mrs. B. R. Hildreth will be in charge of the Ladies' Auxiliary supper featuring meat loaf, escalloped potatoes, carrots and peas, celery, honey mince and honey apple pies, honey rolls and coffee.—A. M. Southwick, Pres.

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Miss Nellie Stratton's honey candies mentioned on page 702, have reached a point of perfection in texture and quality which makes them especially fine for a Christmas gift. The fact that the main ingredient is honey, and that she can make a chocolate-coated candy or one without coating, either product superior to any other honey candy before placed on the market, should solicit the attention of beekeepers all over the United States. This candy has none of the objectionable qualities of a cane sugar candy, which, in the opinion of the dental fraternity, encourages dental decay.

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Gleanings was honored Nov. 25 by a visit from Mr. and Mrs. Melvin Myers of Ransomville, N. Y., who were on their wedding trip. There was still rice in their automobile! Both these young people have illustrious ancestors. Mrs. Myers is the grand-daughter of Wm. McEvoy of Ontario. Mr. Myers is the son of Howard Myers and the grandson of John Adams, whose golden wedding anniversary was mentioned in the August number. If Melvin joins the firm three generations would be represented and the name might be Adams and Myers and Myers. Congratulations to both these happy young people.

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At the annual meeting of the York Cumberland Beekeepers' Association held at South Portland, Maine, on Saturday, October 26, the following officers were elected: President, Milton S. Libby, Portland; Vice President, Carl E. Chappell, Biddeford; Sec. and Treas., Dr. Horatio C. Meriam, Bar Mills. Members of the Executive Committee: Paul E. King, South Portland, and Harry B. Rhodes, North Berwick. The next meeting will be held Saturday, January 25, at 14 University Street, Portland, Maine at 7.30 P. M.—Horatio C. Meriam, Sec'y.

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The Ohio Beekeepers' Short Course is being scheduled on January 28, 29 and 30 of Farmers' Week at the Ohio State University. The subject material has been arranged under three distinct groupings as follows: January 28—Problems of the small beekeeper; January 29—Production problems in commercial honey production; January 30—Marketing problems of the industry. Contacts are being made for three out-of-state speakers to participate in the educational sessions.

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On July 3, 1940, Dr. Karl Brunnich, of Nidau, France, passed away, in his 77th year. For many years, Dr. Brunnich had been a keen observer of bee life and published many papers on the subject. He was the founder of the monthly magazine

(Continued on page 773)

Editorials

"It is better to debate a question without settling it than to settle it without debate"---Joseph Joubert.

Honey and Pollen Plants of the United States This is the title of Circular Number 554 by Everett Oertel, Associate Apiculturist, Division of Bee Culture, Bureau of Entomology and Plant Quarantine of U. S. A. Department of Agriculture, issued recently.

This circular contains pertinent information regarding honey and pollen plants, their blooming periods, the duration of honey flows and the relative importance of some of the major honey plants by states.

In order to secure maximum crops of honey beekeepers must have their apiaries located in regions where pollen and honey plants are abundant. A good beekeeping location is the most important requirement in the production of honey.

Minor sources of honey and pollen are also essential for building up colonies of bees prior to the major honey flow in readiness for storing the maximum crop, also following the main flow for maintaining populous colonies to go into winter. Pollen is especially essential for maintaining brood-rearing throughout the season.

Beekeepers should avail themselves of the opportunity of securing this valuable Circular No. 554 from the Superintendent of Documents, Washington, D. C., for only 10c.

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Price Trends It is now known that far less honey was produced this past season than had been predicted in May and even in June. In some localities conditions were right but owing to severe winter and spring losses there were not enough bees to harvest a normal crop. The per colony yield was good but there were not enough strong colonies.

In other localities drouths at the critical time cut down the yield. Even in many good sweet clover regions the lack of rainfall reduced the season to a bare two or three weeks.

With somewhat less than a normal crop, according to the law of supply and demand, the price of honey should have advanced. In fact it did advance one-fourth cent a pound in carload lots in many localities and even more in some instances. Some honey produced in the United States has been shipped to Canada to help make up shortages there occasioned in part by shipments to England. Just how much U. S. honey has been shipped to Canada is not known.

There are a number of reasons why prices have not advanced faster. First, and perhaps foremost, is that in times of war or even when there are rumors of war, many housewives cease buying luxuries and confine themselves principally to staples. It is too bad, but in many parts of the United States honey is not yet considered a staple. Or, we will put it this way, too many staples are crowding for a slice of the consumers' dollar.

Second, honey producers themselves too often are not consuming as much honey as cane sugar. If even 100,000 honey producers in this country each consumed 100 pounds of honey a year almost a tenth of the total production would be used and this would have an uplift-lifting effect on prices in general. All too many of the honey producers consume more than 100 pounds of cane sugar each year.

Third, many producers, ignorant of general conditions, are willing to sell either to packers or to other large buyers, at prices ruinously low, thus depressing all honey prices. This is not confined to individual producers but unfortunately it is done on a larger and more deadly scale by associations of beekeepers. The excuse is often made that these associations are merely meeting prices offered by individuals or private packers. However, meeting all prices often amounts to price-cutting in the end. To make a long story short this is not the time for the pot to call the kettle black.

It is difficult to foretell the future of prices of honey or of commodities in general. So much has happened—so much may happen.

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Occasional winter sunshine on single-walled hives of two stories has received prominence in our columns of late. Our readers can draw their own conclusions by opening their hives in mid-winter, but don't do it too often, and even then disturb the colony as little as possible. It will be noticed that the cluster, usually over the lower entrance or near the upper entrance, will be toward the front of the hive and under the stores. This cluster will move very gradually upwards and backwards as the stores are consumed. It has been contended that in a two-story, heavily packed colony, the bees may not move to fresh stores, and will starve within an inch or two of real honey and pollen. If there is little or no packing when the sun shines during midwinter the warm rays reach the cluster, which can then move to fresh stores. It is right here that we need more observation. Send in a postal card telling what you find.

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Colony protection during winter can be secured in three different ways; (1st) by hive insulation or packing; (2nd) protection against wind on two or three sides of the whole apiary; (3d) by placing the whole apiary in a dry bee cellar where the temperature does not go below 40° or above 50° F. Whether hive insulation or protection of the whole apiary against prevailing winds are synonymous, or of equal value, is perhaps debatable. It is right here that locality has an important bearing. A bee cellar may have a worse effect on bees than leaving them outdoors. If the temperature goes up to 60° or 70° on some days, in the cellar, and on other days goes down to the freezing point, the bees better be left outdoors in a protected location.

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No Handling Charge The Postoffice Department will not levy a handling charge on queen bees when sent by mail with a dozen or so of bees. About a month ago, a ruling was issued by the Department that such charge would be made; but it was not made clear at the time whether this applied to queen bees and a few attendants or to a queen and a whole package of bees aggregating a thousand or more bees.

Notice has since been made that the ruling applies only to a queen and package bees when sent by mail.

As practically all package bees with or without a queen go by express the ruling in question does not make any change in the sending of either a queen or of a package.

It is possible that some bungler sent a package of bees by mail in a cage that leaked bees and hence the ruling.

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Another Prophecy On page 703 of the November issue we published a prophecy that came true, this prophecy having been uttered by Charles A. Reese, State Bee Inspector of Ohio. We wrote recently, asking him about the prospects for the coming year, and following is his reply. Several times Mr. Reese has made predictions which have come true.

I had about reached the conclusion, after making two prophecies in previous seasons as to the outcome of bees the following year, to cease making those predictions, especially as I did last year when I came out signifying the approximate per cent of possible losses. However, the situation appears to me at the present time, in most of the sections of the state, as being very good in comparison to last year. (See page 703, last issue.) Where the beekeepers have not removed all of the natural stores and have allowed the bees sufficient food for wintering purposes, they should not experience as severe losses next spring as this past year. In some areas of the state there has been an excellent fall flow from goldenrod and aster, and in fact some aster nectar is still coming in where the frosts have not injured the plants to any great degree. Again, if the beekeeper allows the bees to have this honey, and does not re-arrange the brood nests to meet what he thinks is the best condition for the bees, they will come through in flying colors, as brood is still present and the hives are well filled with young bees, a condition which did not exist in the fall of 1939.

Much of the losses are due to the beekeeper himself in removing too much of the natural stores in the fall. If he would sharpen his pencil and work out a few simple arithmetic problems, he would certainly see that removing all the fall honey, for which they would get an approximate price of 5c, and putting in 5c sugar, is an expensive proposition. As I see it, it is much cheaper to leave the honey than to add all the cost of extra labor in returning stores in the way of sugar. But of course, some people like to keep busy and maybe that is one way they keep out of trouble. However, in the spring they wonder why they lost their bees or have colonies with a very low population.

Here's hoping that the beekeepers of the northern section of this country will not have the heavy loss that they sustained a year ago; a loss which would not have occurred had the bees been supplied with plenty of stores, pollen, a young queen with young bees, and a good windbreak; and last, but not least, a small upper entrance through

which moisture could escape. We believe thoroughly in double-walled hives, but not with wet packing between the walls and wet packing on top, which occurs when there is no upper entrance and no means for moisture to escape from between the walls of the hive.

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Timely Supersedure This is a phrase used by Clarence Tontz in his article entitled, "Weeding out Poor Stock", page 737, of this issue. It has reference to queens that are superseded following the major honey flows, when supersedure does not interfere materially with maximum yields of surplus honey.

Most queens are superseded, eventually, if not removed from colonies. However, some colonies with old queens do not supersede their queens. The old queens eventually die and the colonies become hopelessly queenless. Perhaps some one can explain this seemingly strange occurrence. Unfortunately, some queens are superseded prior to the major honey flow, and such an occurrence upsets normal brood rearing which is so essential at that season of the year. If colonies could be induced to supersede old queens after the main flow, considerable work and worry could be avoided.

It seems to be the consensus of opinion that queens produced under the supersedure impulse are likely to be good, provided, of course, the stock is good.

Some years ago we practiced requeening annually each August, regardless of the apparent quality or age of queens. This method has some advantages. It should help to insure having young queens for the following season. However, it has been found that some queens do good work the second season and occasionally a queen will continue to do good work the third year.

In order to be assured of having queens of good quality each season it would seem that a careful checking of queens, each spring, based on performance and appearance, is essential. Any queens that are inferior in appearance or performance should be replaced. Sometimes, however, the bees will supersede a queen which seems to be normal. Apparently the bees detect some weakness or inferiority not seen by the human eye. And so, a good rule to go by is to permit colonies to supersede queens in the fall,—queens that have outlived their usefulness. During the spring remove and replace poor queens that might be superseded during the upgrade of heavy brood rearing prior to the major flow.

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Packing not Recommended Between the Walls of a Private Home as in Former Days Mention has been made in these columns that housebuilders and architects are not placing so much importance on the use of packing material between the walls of a dwelling as in former days. Of late, we have been making some general inquiries from some of the leading architects, and this is what we find:

They have discovered exactly what we have discovered in our bee hives; that during cold weather there will be a condensation of moisture between the walls of a building just the same as in the bee hive. The outer wall is, of course, cold, and the inner wall is warmer. As a result there is condensation of moisture on the outer wall, the same going into the packing material, and if this moisture cannot escape by ventilation the material becomes wet and soggy, and in this condition is worse than useless.

The tendency of builders today is to use no packing between the walls, or to use some material which will not absorb moisture and which will allow it to escape through upper openings under the eaves of the building.

House-builders and architects agree that packing between the walls of a building, **if it can be kept dry,** has value, but the difficulty of keeping it dry is the problem, as with us. It is admitted that if more packing is used there will be less moisture. But as we have proven over and over again even ten inches of solid packing will become moist. Better use very loose straw and less packing so the moisture can escape.

From this we draw the conclusion that a double-walled hive with openings near the top to allow the moisture from between the walls to escape would afford more protection to the cluster of bees than a hive of a single thickness of lumber. If the double-walled hive had loose straw not packed between the walls so that the moist air could work upward and out, the protection would be greater.

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SPEAKERS AT OMAHA CONT

J. I. Hambleton

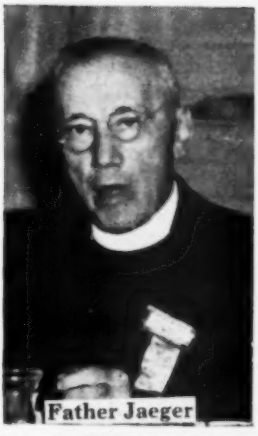
John Holzerbein

Geo. P. Walton

Dr. A. P. St

Dr. C. L. Farrar

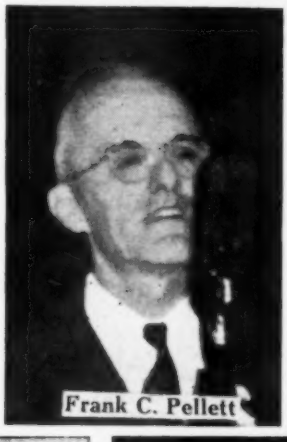
J. A. Munro


Father Jaeger

Dr. G. W. A

A. G. Ruggles

Prof. V. G. Milum


Frank C. Pellett

Will

L. C. Dadant

Prof. R. L. Parker

O. W. Park

H. J. Clay

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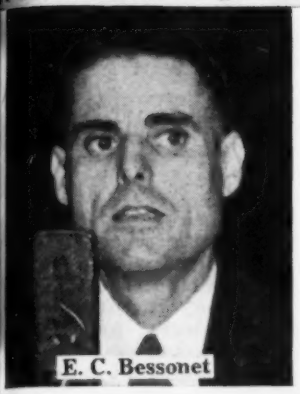

E. C. Bessonet

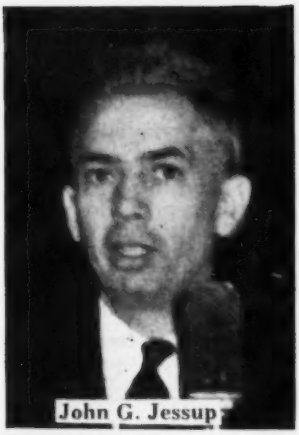
Prof. F. B. Paddock

T. W. Burleson

W. F. Straub

Lewis Parks

Thomas Atchison


John G. Jessup

Mrs. Harriett M. Grace

Clay Lyle

M. J. Deyell

The Omaha Meeting

By M. J. Deyell

A detailed report of this meeting would fill a book. If, in this brief report, I fail to mention some of the speakers and what they said it is because I had to attend committee meetings during the regular program. All I can do is to record some impressions and highlights.

For some years I have been attending national bee meetings. I can say in all sincerity that this meeting was different and this difference was sensed during the opening session. The visitors from thirty states—honey producers big and small, queen and package shippers, bee supply manufacturers and honey packers—these constituting a cross section of our industry, seemed to realize the time has come when something must be done for beekeeping. The industry just can't go on as it has been for the past decade,—simply marking time. The demand for honey is the very foundation of our business. Honey needs more publicity. There needs to be more intelligent cooperation between individuals and organizations.

$20,000 Fund for Honey

At a meeting of the Board members of the American Honey Institute, also some of the honey packers and representatives of bee supply manufacturers, called by Lewis W. Parks, Chairman of the Board of Directors of the Institute, ways and means were devised for publicizing honey on a national scale. This work is to be done through the American Honey Institute, Madison, Wisc., in cooperation with the Steve Hannagan Associates of New York City, a concern skilled in methods of publicity.

The American Honey Institute will continue to function as it has been doing and it will also help to furnish this concern with facts and information concerning honey which may be used by this organization in their various methods of making the public more honey-minded. It is **honey** that will be publicized and not any particular brand of honey.

At this morning meeting $18,000.00 was subscribed by honey packers, bee supply houses, and individual beekeepers. The amount of $20,000.00 is needed for 1941. The remaining $2000.00, it is hoped, will be forthcoming in the near future after more organizations and beekeepers have been given the opportunity to subscribe. Beekeepers over the country are urged to continue their support to the American Honey Institute in order that consumer interest in honey may be measurably increased. We have a marvelous product that is different from any other food on the market today. The world needs to be told about honey, nature's oldest, safest, and choicest sweet. The American Honey Institute, Madison, Wisc., with the assistance of Steve Hannagan Associates of New York City, will tell this story. Let us hope that this may be "only the beginning" of a new era in honey publicity and that our industry may be lifted out of its rut, into a higher and more prosperous plane.

And now a word concerning the various sessions: I did not have the opportunity of attending the opening session Tuesday morning of the American Honey Producers' League to hear President Thomas C. Burleson, of California, and other interesting speakers. According to reports I missed some splendid talks.

Dr. C. L. Farrar of Madison, Wisc., in his talk on pollen said that no 100% substitute for pollen has been found. A colony may consume from 40 to 50 pounds of pollen, six to eight gallons by measure, in a year. In regions where pollen is scarce pollen traps may be used to secure pollen to mix with soybean pure flour to make cakes approximately 5x7x1" to lay on top of the brood nest. A mixture of 25% pollen and 75% soybean flour has been found to give fairly good results in brood-rearing.

Jas. I. Hambleton, senior apiculturist of the U. S. A. Bee Culture Laboratory, Beltsville, Maryland, in his progress report on disease resistance emphasized the fact that control of disease is and should be practiced. Some progress is being made in developing bees that resist AFB. At least, it has been found that some strains will clean up AFB and stay clean, while others may clean it up and succumb to it later. It would seem that the quality of resistance to AFB is in the behavior of bees and not in the blood. It was found that the bees in one region took disease quicker than bees in an-

other region. Queen breeders should be careful what they tell customers, and may say their stock is bred for resistance. Results last year at various field stations were not so good as previous years which simply emphasizes the fact that this is a long-time project and we should not get in too much of a hurry for results. We should all give this project our support and may I add parentheticall-ly that before it is completed we are likely to learn much about honey-bees.

Wednesday morning's session of the American Honey Institute was called to order by Thomas W. Burleson, of Waxahachie, Texas, who, in a few appropriate remarks presented Lewis W. Parks, Chairman of the Institute Board of Directors. Mr. Parks briefly reviewed the history of the Institute from its beginning in 1928 to the present. Much progress has been made during the years.

Mrs. Harriett M. Grace, Institute Director, told of the work during the past year and brought out the following points: (1) Honey not only gives quick energy but also delayed energy. This is one reason it is so valuable to athletes. (2) More attention should be given to the attractiveness of honey containers. "Send honey to the market as you would send your child to school the first day." (3) A buyer of foods for the army said that if the U. S. A. army put honey on their menus there wouldn't be enough to supply demand. (4) Two large American candy manufacturers are now using American honey instead of honey from a southern country. (5) The Institute is securing splendid cooperation from home economic organizations over the country who test honey recipes.

George P. Walton, of the U. S. Bureau of Chemistry and Engineering, in speaking on honey for the baking trade said that, (a), some flavors of honey are unsuited for baked goods; (b), honey has an advertising value in bread; (c), it improves the condition of the dough, also the keeping qualities; (d), bakers like convenient honey containers with full-sized tops, preferably with lugs to facilitate removal of honey from containers; (e), bakers require honey of proper density, free from active fermentation and clean.

Wm. C. Joest, of Millersport, Ohio, in presenting some of the problems of the honey packer, mentioned the three classes of packers, (1) the independent packer, (2) the producer packer, and (3) the cooperative—consisting of a number of beekeepers. As a rule, the independent packer is not a salesman and lack of salesmanship is the underlying problem of our industry. We need leadership in merchandising honey. Mr. Joest says bee journals should devote more space to teaching beekeepers how to sell and encourage them to sell to large packers so that the honey may be properly graded and processed for market. Dumping honey onto the market at cut prices has a demoralizing effect on the industry.

Harold J. Clay of the U. S. Bureau of Markets, Washington, D. C., in his talk on increasing local honey sales said that (1), very few grocers know anything about honey; (2), the average chain store has 854 lines and the independent store 484 lines; (3) mass displays attract buying; (4), housewife is the buyer so eye-appeal is necessary; (5), educating clerks to the virtues of honey pays; (6), live bee displays help but they should not over-shadow honey; (7) young people can popularize honey and increase sales by selling from house to house.

During the session held by the **Apiary Inspectors of America** there was a lively discussion on the interstate shipment of bees. **A. G. Ruggles,** State Entomologist of Minnesota, thinks colonies inspected and found free from AFB should be permitted to be moved from one state to another. Some concurred in this idea. Others were against it. Some thought that disease is carried in combless packages and that more rigid supervision and inspection should be carried out. Three southern inspectors, Clay Lyle of Mississippi, Thomas Atchison of Alabama, and E. C. Bessonet of Louisiana, were present to assure northerners that Southern apiaries from which bees are shipped have careful and thorough inspection.

Dr. R. L. Parker, State Apiarist of Kansas, who spoke on "Ports of Entry as a Possible Aid to Apiary Inspection", mentioned his state as one through which many loads of bees move from South to North and vice versa. No trouble is experienced provided owners of bees and drivers of trucks comply with state requirements. Dr. Parker favors uniform state bee laws.

It would seem that our industry is due for more uniform state bee

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laws and perhaps a federal or national bee law that would safeguard the spread of disease and at the same time work no hardship on shippers and those practicing migratory beekeeping.

The National Auxiliary of the American Honey Industry met under the leadership of the president, Mrs. T. W. Burleson, Waxahachie, Texas. I regret that it was impossible for me to attend that session but I understand some splendid talks were given. I hope the men folk may never forget that the future of our industry is largely in the hands of the fair sex, because they do most of the buying of foods, they use honey in various recipes, and they place honey on the table.

Beekeepers and their wives must take some time out for fun and relaxation. The annual banquet afforded such an opportunity. F. B. Paddock of Ames, Iowa, did a "swell" job at toastmastering. Lyle DeMoss, radio star, furnished splendid entertainment and the food was super deluxe.

Thursday morning's session was in charge of **Newman I. Lyle,** President of Iowa Beekeepers' Association, who presented **John G. Jessup** of The A. I. Root Co. of Iowa, Council Bluffs, Iowa. Mr. Jessup produces extracted honey commercially and believes in good queens, abundance of stores, ample comb space for brood-rearing and storage of honey and adequate protection against cold weather. He believes in checking for disease before surplus honey is removed, also keeping records of expenses.

Frank C. Pellett, of the American Bee Journal, in his talk on "Bee Pasture Problems" called attention to the constant changes occurring in the prevalence of honey plants, especially clovers. Prior to 1916 white Dutch clover constituted the main source of nectar in the clover region. Since then sweet clover has come. However, in some regions sweet clover is disappearing and apparently it comes in cycles. Any single crop source is likely to have a cycle of 25 years. **It seems inadvisable to keep bees commercially in a region that gives only one major source of nectar.** It has been found that the plant that is most valuable as a honey plant is a good honey plant.

O. W. Park, of Iowa State College, mentioned the work of the college, especially projects related to beekeeping. They are,—(1) influence of the weather on honey plants; (2) studies on nectar; (3) causes of supersedure; and (4) disease resistance. This last mentioned project was started in 1934. The Iowa Agricultural college now coordinates with the U. S. Division of Bee Culture, Beltsville, Md., also some of the field bee culture stations. It has been found that there are strains of honey bees that possess resistance to AFB, also that progeny of resistant stock inherit these characteristics. Resistant stock cannot be sold, so a few queens were loaned to responsible members of the Iowa Beekeepers' Association to try out. A complete report on the performance of this stock is not yet available but there is reason to believe that this project, now in its sixth year, is showing results that appear to justify its continuance.

By the way of a pleasant diversion from the regular program of addresses, we had two very interesting moving picture reels. The first was put on by Thomas Atchison, Apiary Inspector of Alabama. These pictures showed the production and shipping of package bees and queens, including a large truckload of 800 packages transported from Alabama to Saskatchewan, Canada, in less than three days.

The second set of pictures were taken and shown by H. H. Root, General Manager of The A. I. Root Co., Medina, Ohio. These are, without doubt some of the finest pictures of bees and blossoms ever shown. Mr. Root, aside from appearing twice on the program, was able to get pictures of most of the speakers, as shown on pages 760 and 761.

Much credit is due the sponsoring organization, the American Honey Producers' League, with its able corps of officers, especially Louis Hines, Secretary and Treasurer, and R. H. Walstrom, National Chairman of Arrangements, for their untiring efforts in making the meeting a success. To set up a program and schedule speakers for six organizations and have the program move along smoothly as it did in Omaha is a worthwhile achievement.

League officers elected for 1941 are: President, John Holzberlein, Denver, Colo.; Vice President, Eugene Cutts, Montgomery, Ala.; Secretary-Treasurer, Louis Hines, Omaha, Nebr.

Officers of American Honey Institute for the coming year are: Chair-

(Continued on page 773)

From North, East, West and South

NORTHERN CALIFORNIA, Nov. 4.

Weather: So far in the beekeepers' new year the weather could not have been better had the beekeepers all agreed and had their directions carried out. The first rain came the middle of October breaking the long summer dry spell; ten days later another shower and now ten days later, November 4, we are having our third rain. The green grass is springing up and the buds on the fruit trees show that, given time, they will bloom again. Beekeepers are wearing a hopeful smile as they assure themselves of another crop in 1941.

Farther north some parts of the state have had more rain than we have had. They need more for their principal honey plants are deep rooted and the early rains give them a good start.

In the mountains the snow has already commenced. The bees are being moved to lower grounds, many of them into the orchards where they will be ready for the blooming season.

Condition of Bees: The condition of bees for this time of the year is better than usual. Here in the Bay region beekeepers, because of the low price of honey, have left plenty of honey in the hives. More fall requeening has been done and the result is a good lot of young bees to go into the winter and, better still, to be ready for the first honey flow in February.

Honey Crops: Up to date, beekeepers have from a fair to a good crop of honey for 1940 and it is in the cans. If they have been short of money and compelled to sell, they have sold on a low market—in fact, it was not a market. Such beekeepers load a truck with honey in second-hand cans and drive in to the broker. The broker tells him that he has honey enough on hand for the next three months and a few more things along that same line. The beekeeper feels that he would like to sell here because he sold here last year. But he pulls himself together and drives on to another broker where he meets the same condition and he finally takes what the broker offers him.

If you happen along about this time, that beekeeper will tell you he is thoroughly disgusted with the honey industry, that he is going home and get rid of every bee he has. He won't do anything of the kind—he will be in town again as soon as he has more honey and go through the same procedure of being one of the leaders in making poor markets.

The other day one of our up-to-date beekeepers said to us—"Our industry is in a bad shape and I believe we can put the blame dirctly upon ourselves. How we can change it, I don't know. I feel quite sure of one thing and that is, if we have a change for the better we will have to do it for ourselves. No one is going to do it for us."

He is right. Organization and **cooperation** will do it. Let's try it beginning **today.**—Cary W. Hartman, Oakland, California.

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SOUTHERN CALIFORNIA, Nov. 1.

Weather: We received from one to two inches of rain over most of the bee ranges of Southern California. The ground had become very dry. Farmers are busy as the rain put the soil in excellent condition for any who had fall seeding to do.

Honey Crop: As the season advances and more information comes to hand we are forced to raise our estimate of the gross honey crop in California for 1940. Perhaps we happened to be in the section of the low average. Some sections like the star thistle and blue curl ranges as well as some of the sage ranges are reported as getting whopper crops. One guess was that the state probably produced 250 carloads. The orange was probably between 25 and 30 thousand cases.

Market: Some honey has been sold by producers since our last letter but there is little activity among buyers. Prices so far as we can learn have not changed materially during the past two or three months. We heard

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of honey being sold at one of these week-end Saturday grocery store's sales at 27 cents for a five-pound can; also that honey was being furnished the retailer for as low as $2.98 for 12 five-pound cans. Woe unto the honey producers if we have to compete with these prices.

Beeswax has advanced one to two cents since our last letter.

Miscellaneous: Merry Christmas and a Happy New Year to all. While 1940 treated us with consideration we feel it is not selfish to hope for better times in the year to come. Of course we hope for better crops and higher prices but, if we have good health and enjoy life as we go along the worldly goods are not of so vital a concern after all. This can easily be verified by a look into the past years to see how much more we enjoyed the good times we had rather than a big honey crop we produced.

Did you ever discover that mayonnaise jars were excellent jars for honey samples, and, if you leave the cardboard under the cap on the jar that you would be wondering where that rancid odor came from when you opened the jar? We heard of a sample of honey that had a horse radish odor.

Quoting from an address before our Rotary Club, "The American people used 123 pounds of sugar per capita last year". It looks gigantic along side of our production of 1⅓ pounds of honey per capita.

The health-giving qualities of honey as an agent to alleviate the distress of hay fever and asthma have long been recognized. One hundred years ago the writer's grandmother used honey to relieve attacks of asthma. We understand that vaccination with pollen or pollen substitutes as an agent to alleviate the attacks of asthma and hay fever is one of the remedies now used. As honey contains a certain amount of pollen why not eat it and get the same results?

After glancing over the foregoing notes and wondering if they contain any worthwhile ideas, we look out of the window and these are some of the things we observe. The sun is shining brightly, a few fleecy clouds are slowly drifting across the sky, flowers are blooming, grass is starting to show, trees and shrubs look fresh and green, birds are singing, and even a butterfly goes from blossom to blossom in search of food. Verily it is a good old world, after all.—L. L. Andrews, Corona, Calif.

TEXAS, November 1.

The weather for October was sufficient to make every beekeeper in this part of Texas rejoice. Normal weather accompanied by clouds and an ever increasing amount of rainfall brought numerous fall plants into bloom. The bees have been able to pick up large amounts of pollen and a small surplus of honey. The bees will go into this winter in far better shape than for four years. During the month visits were made to a number of commercial beekeeping apiaries and all of them were found to be in better than normal fall condition. In this section there have been no reports of loss of bees during the summer and there has been a decided increase in the inquiries as to where bees might be purchased. These inquiries come from both fanciers and commercial beekeepers. With the coming of the rains the native plants respond as is the habit in semi-arid regions. Within a few hours after the rains commenced white brush and rain lillies were in full bloom. Following these came cenisa and other shrubs. As the rains increased broomweed and yellow top put in their appearance almost over night so that at the present writing the bees are very busy bringing some nectar and large amounts of pollen from these composites.

Conditions: Commercial beekeepers in extreme southern Texas and southwestern Texas report that their bees have been able to build up this fall to a greater extent than for many years as in their sections the rains commenced in mid-August, and that some colonies which apparently could not go through the winter now have greater stores and an almost normal worker force. The conditions throughout the State at the first of November seem to indicate that next year will be greater or better as already the seedlings of horsemint are showing throughout its range and other early honey plants now are making their winter rosettes. These reported conditions react on the beekeepers and they are already preparing to see that their bees are put into winter quarters in the correct form and that everything will be ready for a honey crop next spring.—H. B. Parks, San Antonio, Texas.

KANSAS, November 6.

Weather: This fall, in Kansas, has been one similar to that of 1939. In both of these years the fall has been extremely dry. There have been a few showers near the end of the fall period which has helped the soil condition and plant growth to some extent. It is again becoming dry. Leaves have remained on the trees up until this date but in all probability they will soon drop, following this freeze. It is hoped there will be more rainfall coming to properly condition soil and plants for winter.

Honey Crop: In eastern Kansas, the honey crop of the past season averaged about 25% to 50% better than that of 1939. The honey produced is primarily from yellow and white sweet clover. In the northeastern part of the state there may be some basswood mixed with this in a natural blend. At the present time there are extremely few white clover plants in eastern Kansas. It is hoped that in the near future these plants will re-establish themselves and enable the beekeepers to obtain a white clover and white sweet clover blend of honey. In the eastern and south-central part of the state there was lost an immense sugar crop in the form of honey. There were many acres of white sweet clover and alfalfa which were not utilized by beekeepers to gather a honey crop. As an example, one beekeeper in the vicinity of Wichita, with 9 or 10 colonies, produced a 200-pound surplus of extracted honey per colony when his apiary was adjacent to 160 acres of white sweet clover. In other words, there should have been about 140 to 160 colonies adjacent to the sweet clover field instead of 10. A commercial beekeeper in northeastern Kansas reports also that a 200-pound surplus per colony was obtained in that section. It would appear that there is a fine opportunity for beekeepers in Kansas, in cooperation with the soil conservation activities in the pollination of these field crops and the production of honey.

Market: Honey is being sold at a fair rate, as it has been for the past several falls. The retail price on a five-pound package of extracted honey is a little better price than what was sold last year by certain marketing organizations. The marketing price last year of this sized container was five pounds for 35 cents. This year it is being priced at 39 cents. The method of price-cutting to sell a crop is the poorest kind of salesmanship.

Miscellaneous: At the national beekeeping meeting in Omaha, Nebraska, there was a good representation of beekeepers from states in the middle-west, southern, and western states. Representatives from the eastern states were conspicuous by their absence. Considering the nearness of Kansas to Omaha, Kansas beekeepers were somewhat conspicuous by their absence, since there were only enough to be counted on the two hands.

At the present time, plans are being made for the annual beekeepers' program of Farm and Home Week at the Kansas State College on Thursday, February 6, 1941. The program for this meeting will be available in printed form during the latter part of January, 1941.—Prof. R. L. Parker, Manhattan, Kansas.

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WYOMING, November 5.

Weather: Wyoming's drouth extending through July and August was broken the latter part of September with approximately 8 days of drizzling rain which was a help to fall pastures, but entirely too late to be of benefit to our industry this year but with the wet snow which fell a few days ago it will be a factor with honey plants next spring. Failing streams in many parts of the State are running a nearer approach to normal than for 7 or 8 years. This morning the temperature has dropped to 10 above, the first touch of cold weather.

Crop: It is estimated that production is about two-thirds of what the '39 crop was, and last year's yield was considerably below normal. About half the crop is now out of the hands of producers.

Market: With our small population, and the few towns of any size mostly being on the border lines convenient for out-of-state honey coming in, Wyoming is certainly the chisler's

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paradise on small package trade, and, because of our handicap on freight rates, we take it on the chin in the bulk market, too. But with the skill and business acumen required to hang on in the bee game I still have faith that something will develop to strengthen our marketing conditions. I hope every Wyoming beekeeper has taken note of Cary Hartman's mention in the November issue of this department of the two important steps taken in his state—formation of "The California Honey Producers", pooling their honey (Why not Wyoming?), and particularly their establishment of a plant in the city of Oakland to manufacture honey-coated cereals, Puffed Whole Wheat, Puffed Brown Rice, Corn flakes and Popcorn. I have a package of the Puffed Whole Wheat and it is very tasty. We producers MUST find new uses for honey, either directly or by a more liberal support of the American Honey Institute. We are not in step with this highly competitive day and are not getting our share of the American housewife's grocery dollar for a product that richly deserves it.

Miscellaneous: The National beekeepers' convention at Omaha on October 22, 23 and 24 was attended by some 300 beekeepers from 35 states, a splendid place for exchange of ideas. As this outstanding feature will be covered elsewhere, I will only say that three of Wyoming's beekeepers were present, and the high spot of accomplishments was the starting of an advertising fund for our product.

Bees are heavy with winter stores, and those who have not completed their packing are probably making definite plans to do so as soon as this present cold snap clears up. I heartily agree with L. L. Andrews that the man who has just what bees he can take care of within the family circle is lucky. For some years the hired help has made more than the owner, and this is true in many other lines also. On this election morn' one can not help but wonder if there will be any change for the better after listening to so many campaign speeches with so many claims and counter claims. This is, should I say a sport or travesty, we Americans indulge in every four years, but it's a better pastime than dropping bombs on your neighbors and accomplishes fully as much.—Earl C. Reed, Ranchester, Wyo.

MANITOBA, November 6.

Weather: This has been the warmest fall since I came to Western Canada. Two or three nights of light frost killed tender vines and then fine fall weather with temperatures around 60 in midday continued through October. Flowers like marigolds have shown a blaze of color up to yesterday and fields and lawns in many places were green as in summer time. Thirteen degrees of frost last night has let us suddenly into winter weather and as I write snow is falling steadily.

Honey Crop: The honey crop reports that have been coming in for the last ten days average from nothing to 200 pounds per colony. Some districts that have been our surest croppers have very little this year. Municipalities that have been most uncertain and in which few bees are kept have sent in the largest averages per colony. Reports so far, covering the first 10,000 colonies place the average per hive in the 60-odd pound column. I cannot see where this will improve with later reports as we generally get the reports on the best crops first. Many producers who in other years have wintered their bees are killing them this fall as there was not enough honey to risk wintering.

The quality of this crop is from the whitest honey I have ever seen to a color closely approaching that of peanut butter. It tastes good, but Oh! the color, and our buyers buy on color. Where the crop averaged 100 pounds per colony, the honey was mostly from sweet clover and white in color but where the average went under 50 pounds per colony it was yellow or dark in color. Sweet clover in dry districts, I am informed, was not visited by the bees this past season.

Prices: Many producers report local sales at 10c a pound with the buyer bringing his containers. Nearly all reports so far state, "Honey all sold". One shipper exported six carloads in one week not long ago.

Miscellaneous: A few report they will not buy bees next spring. Some of our younger men are now in the army and their equipment will not be used next year.

We have had some good rains of late and the land is in fair condition

for winter. Reports on sweet clover for next year are uniformly good.

A good deal of anxiety regarding whether or not the Government will allow us to buy package bees next spring seems to be evident but I do not think there will be any trouble if we can raise the extra money. The increase in the price of honey will more than make up for the extra cost of the bees.—L. T. Floyd, Winnipeg, Man.

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MINNESOTA, November 5.

Conditions: The 1940 season started slow and late after a mild winter with many hives short of food for spring breeding. Consequently, some colonies built up on the honey flow instead of for it, and in most of the state the honey flow was shorter lasting than usual.

This year in western and northwestern Minnesota sweet clover pasture was as scarce as elsewhere in the state and there was much colony moving for better pastures. To make matters worse the drouth that seems to come at some time each year further cut down nectar sources. One beekeeper says it was not hot enough during the short flow to make the clover secrete well. Another reports that what crop was gathered came during the first three weeks of July. For this important beekeeping section ¼ to ¾ of a normal crop was gathered.

Other sections of Minnesota felt the drouth and report short crops. Although yields varied with apiary locations, generally there was a better crop in southern Minnesota. Swarming was less than for several years. There is a spendid growth of young sweet clover plants which should be able to winter well. Brood-rearing stopped unusually early and reports of plenty of bees but short of pollen indicates a sparse fall flow. Warm weather held up packing operations for winter but now many apiaries are packed.

Miscellaneous: Demand for honey has been fairly good with the result that approximately three-quarters of the 1940 crop has now left producer hands. Prices have maintained the same low levels of last spring and although a few beekeepers are holding for better prices little prospect of any considerable rise is in view. Should peace come to Europe export honey would then be in demand.

With foreign markets cut off it may be interesting for beekeepers to watch what other producer organizations are doing this winter to market their products. We may learn valuable lessons. It seems proper that this space should be used to urge Minnesota beekeepers to support their national publicity organization, the American Honey Institute. Send in your dollars now and so put your name on the honor list. The Institute needs money to carry on publicity for our product, the sweetest of them all!

With the prevailing trend in raising yellow sweet clover Minnesota beekeepers find an early nectar flow with many colonies not built up sufficiently to take advantage of it before the blooms are gone. Consequently, many apiaries gathered their crop before August first and if the nectar source were available the crop could have been doubled during that month. Consideration of other nectar sources for the month of August should be the urgent concern of beekeepers caught in this situation.—Bruce L. Morehouse, Montevideo, Minn.

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WESTERN NEW YORK, October 28.

Weather: Conditions for the most part have been out of time with bloom of the major nectar sources. Beginning with fruit bloom right down through clover and buckwheat, cold wet weather prevented bees from working their best which resulted in not only a short honey crop but also a short fruit crop. Practically the only good crops of fruit (especially apples) in Western New York occur in orchards where there are ample pollen sources for cross pollination and a liberal supply of bees to perform fecundation during very brief periods when weather is good enough to permit it.

Honey Crop: White and alsike clover bloomed during cool unfavorable weather with occasional good days. With so much unfavorable weather regular schedules of management could not be followed. Swarming became very serious and much of the

possible white honey crop was lost on account of excessive swarming.

Better weather occurred during the period when basswood, second crop alfalfa, and late white clover were in bloom and these gave a fair account of themselves where swarming had not depleted the colonies. Bad weather occurred again during buckwheat bloom and in spite of very large acreages of this plant very little buckwheat honey was harvested.

Markets are not noticeably different than they have been for the past few years. There is fairly good consumer demand at a price that might be considered satisfactory in comparison with the low prices prevailing in wholesale channels. But even the best retail prices seem way out of line compared with everything we have to buy.

Condition of Bees: The most favorable weather of the season for bees occurred during goldenrod and aster time. Brood-rearing was carried on late and ample winter stores were secured so that colonies are strong in young bees and heavy with these stores in locations where these plants are plentiful. Aster stores are not considered the best quality for wintering. However, this year the honey is well ripened and the combs sealed and if the winter is not too severe we expect not very bad results.

Honey Plants: We have had plenty of rain all summer and clover is plentiful and in good condition for winter. —H. M. Myers, Ransomville, N. Y.

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MAINE, November 1.

Weather: The weather in Maine has been quite like that in most Eastern portions of the U. S. The spring was cold and backward with too much rain and too little sunshine. June gave us but five days of sunshine without rain. Strong colonies of bees built up quite well in spite of this but other colonies came along slowly. Many colonies were badly depleted in numbers during the winter confinement and the cold backward spring weather. All vegetation made good growth but clover did not begin to yield until July first in Northern Maine.

Honey Crop: In consequence of all this the yield from bees has been spotted more than usual. Some sections report a bumper crop while another thirty or forty miles away gave very little surplus.

Prof. Charles O. Dirks of the University of Maine, Secretary of the Maine Beekeepers' Association, reports the best flow between June 27 and July 25. This for Central Maine. This would be a normal condition here in Aroostook as we usually get our best flow between June 20 and August 10. This year the clover flow started July first and lasted about ten days. Strong colonies gathered a fair crop but others little to none. Then there was a dearth of nectar, only enough coming to keep up brood-rearing. About July 28, goldenrod started to flow during a warm, dry spell which lasted nearly a month. I secured more than half the surplus crop from this source and the finest quality goldenrod honey I have ever tasted, also the largest yield I ever secured from this source. Supers were filled with sections which would not be easily distinguished from alsike clover without cutting into the combs, except for the goldenrod aroma. Many standard sections weighed 16 to 17 ounces in many supers. This flow from goldenrod must have been quite general as Prof. Dirks reports a colony on scales at Orono gained 71 pounds between August 5 and September 20. Generally along the coast conditions were not favorable.

Conditions: I think bees in a general way all over the state are going into winter in very good condition. October weather has been unfavorable for bees and nectar-secreting plants, but it has now turned sunny and with a few flights before winter finally settles in, bees should go into winter under favorable conditions. There is plenty of moisture in the soil and with a normal snowfall in season the nectar plants should come through winter well.

The demand for comb honey is very good considering the financial conditions. In Aroostook where potatoes are the cash crop, honey is moving slowly as potatoes are moving to market very slowly at less than 75% of actual cost of production. Only necessities can be bought by most farmers and this county is dependent on the potato grower.

Miscellaneous: Many unusual things have been noted with the bees this season. We have taken off several supers of honey where there had been no work done on the north tier

of sections in the seven frames but where all others, except corner sections were mostly fancy sections, the yield being from goldenrod. Usually work will vary from sections just well started to those completely filled and sealed, or to nearly all well along. During clover flow some colonies would have combs drawn and nearly filled throughout supers —with but few cells sealed, even to outside frames.

Drones were permitted to live in most colonies well into September. Second swarms hived late in August on full sheets of foundation had about six frames of brood the last of September and are in good condition for winter with stores enough to be safe in cellar wintering, and carry to spring nectar. We are looking forward to 1941 in anticipation of a good year.—O. B. Griffin, Caribou, Maine.

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ONTARIO, November 4.

Weather: October gave us splendid weather here in this part of Ontario and our heavier-than-usual feeding for winter stores was accomplished with little trouble as syrup was taken down readily. At this date, Nov. 4, we are just finishing packing, etc., while two of the boys have left for a two-week's vacation in the northern woods. Moisture conditions with us locally are good but in the eastern counties of the Province we understand that the weather has been very dry for three months past. August and September gave us soaking rains here and even more moisture fell in the western counties. Clover conditions were never better in these sections as all spring seeding was a success and many volunteer "catches" are in evidence.

Crop Conditions: The crop of honey for Ontario—a rather small one by the way—is practically all out of the hands of producers and prices are ruling firm. In my opinion, some have raised the prices too high in their retail trade, for this is apt to turn the public to use other products in place of honey, and then, again, the margin between prices in the U. S. and Canada at present is sufficient to allow importation and still sell at fair prices even after duty, frieght, etc., has been cared for. Our own light crop has been sold locally with the exception of a carload sent to London five weeks ago. If "no news is good news" everything is all right as we have not had a word regarding the shipment since the car left our station. Buckwheat honey crop was a failure in many localities and the price was also higher than a year ago. While the season just passed cannot be called a good one for beekeepers in most parts of Ontario, yet things might be worse, and as already pointed out, prospects for next year in so far as clover is concerned, are excellent. What optimists we beekeepers are! !

Beeswax is also firm and higher in price than a year ago, and all we had ready for market has been delivered to a thread factory that we supply each year.

Miscellaneous: The writer of these notes was invited by the senior editor of Gleanings to participate in the symposium on wintering in October and November issues of Gleanings, but as we were in the hospital when material should have been prepared, we were prevented from taking any part in the debate. However, readers of Gleanings missed little if anything by this, and since reading Dr. Phillips' article in the November issue, really we are glad that we had said nothing, as what he says regarding winter brooding and the feeding of pollen to encourage brood-rearing in the winter expresses our views so well and so much better than we could have done. However, we feel that all contributors to this discussion have failed to emphasize the most important feature in so far as winter protection is concerned, for after all, **sufficient** stores of **good quality** is the first item in the line of **"packing"** for winter protection.

Bees will winter with lots of good stores when other conditions are anything but ideal, while on the other hand, no matter how well prepared otherwise, they will perish when stores are bad or insufficient in quantity. Why wink at the facts? Over fifty years ago my grandfather operated a home apiary of 150 colonies and an outyard of 100 colonies 80 miles away. As a young lad I was with him a great deal and have vivid memories of many things observed while with him. Later in life we acted as apiary inspector for five counties of Ontario for five years or more. Since then we have seen many hun-

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dreds of colonies and observed their condition in the spring. And I wonder if we are guilty of exaggeration when we state that 90% of winter losses each winter are caused by starvation or poor stores? Last winter we had quite a loss in some if our yards and it was easy to diagnose matters when holding the inquest last spring. Sorry to have to admit that some starved outright and that meant poor judgment or miscalculation on our part, for we did not wilfully stint when feeding for winter. Quite a large number of colonies that perished had combs almost solid with stores that could not be used by the bees—not granulated in the usual form but of a very thick waxy nature, much of it mixed with pollen. While poor stores in this case caused loss, in a general way we would say that at least 75% of winter losses each year are caused by **actual starvation** by reason of **insufficient stores.**

While we do not intend to say much more re this matter of winter brood-rearing and feeding of pollen, we do wish to say emphatically that all we know about this matter pertains to wintering in our latitude where it is common to have our bees go four months or more without a flight. And for our locality, we would say that anything advocated to encourage brood-rearing during December and January is, in my opinion, not forcibly enough condemned by Dr. Phillips' mild term "fad". Dr. Phillips properly calls attention to the fact that young bees have their rectum, and colon as well I presume, filled with feces when they emerge from the cells. It is not necessary to be a scientist to prove that, for you have only to observe what happens when young bees are having a good flight after they have been prevented from having a flight for a week or more in late spring by unfavorable weather. Grass and other objects around the hive will be well spotted and it is easy to imagine what condition these bees would be in if debarred from a flight for a period of many weeks. When we examine our bees early each spring to see how they are for stores, we always feel alarmed to see colonies all in action with bees all over the frames—this condition during cool weather, of course. On the other hand, when colonies are almost dormant at this time with honey showing right across the hive, we feel that all is well. If examined, we find the restless colonies have a lot of brood and the quiet ones very little. And by the time the honey flow is on, many of the restless colonies will be dead or weak and the quiet ones will be boiling over with bees.

Yes, regardless of what some of our critics may say, we still think that McEvoy was not far out when he contended that for every young bee reared in December and January —here in Ontario—it cost the lives of two or three old bees.—J. L. Byer, Markham, Ontario.

A South African Apiary

Here is an interesting photograph of the neat and well-fenced home apiary of Mr. A. R. Walter, of Fort Grey, near East London, South Africa. The beauty of the surrounding landscape adds greatly to the appearance of this apiary of 83 colonies.

JUST NEWS

(Continued from page 756)

"Imkerfreund". He was a frequent contributor to the pages of the "Bee World". As will be recalled, he did considerable work on the internal temperature of the bee, the ripening of honey, and the estimation of stores resulting from the feeding of bees.

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Mr. Edmund Kuder, of Hausen a. Abbis, Switzerland, has become the new editor of "Imkerfreund". He takes the position left vacant at the death of Dr. Brunnich.

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Readers Digest for November, 1940, carries a condensed prize-winning essay, written by H. E. Coffey, of Karnes City, Texas. The subject of the article is "Why I Favor Private Enterprise", and was entered in a national contest sponsored by Forbes Magazine. Congratulations Mr. Coffey.

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The Empire State Honey Producers' Association will hold their annual meeting on December 6 and 7, at Comstock Hall, Cornell University, Ithaca, N. Y. An unusually good program has been prepared.

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WSB, Atlanta Journal station will broadcast a 30-minute program for the benefit of beekeeping as a whole at 10:30 P. M., C. S. T. on Dec. 11, Dec. 18, Jan. 1, 1941, and Jan. 8.

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The Philadelphia Beekeepers' Association, one of the oldest in the country, lost one of its members by death, Mr. J. R. Rambo, who for many years served as secretary and kept intact much of the old library. Also, Rev. A. T. Helms, a valued association member, passed on recently.

OMAHA MEETING

(Continued from page 764)

man, Lewis Parks, Watertown, Wisc.; Vice Chairman, A. G. Woodman, Grand Rapids, Mich.; Secretary-Treasurer also Institute Director, Mrs. Harriett M. Grace, Madison, Wisc.; Chairman Finance Committee, V. G. Milum, Champaign, Ill., R. F. Remer, Sioux City, Iowa, H. M. Krebs, Sacramento, Calif., L. C. Dadant, Hamilton, Ill., M. S. Stone, Ogden, Utah, R. E. Foster, Gainesville, Fla., M. J. Deyell, Medina, Ohio.

The officers of the Apiary Inspectors of America were re-elected. They are H. M. Krebs, California, Chairman, F. B. Paddock, Iowa, Vice Chairman, and Clay Lyle, Mississippi, Secretary-Treasurer.

The 1941 National Beekeeping Conference will be held in Niagara Falls, N. Y., the date to be set later.

Across the Rio Grande

Salvador E. Sambrano, of Monterry, Mexico, established two apiaries ten years ago. This is one of them, the other is shown on page 513 of the August issue. Mr. Sambrano keeps a fine-looking apiary.

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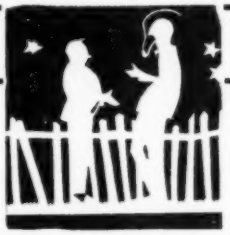
Asked and  Answered

Processing Sour Honey

Question.—I would like a little information regarding some honey which was extracted last season. Said honey is palmetto which is a light-colored medium weight honey. This honey was completely granulated and I melted it in an open double-boiler, strained and skimmed it letting it cool in a metal storage tank, then drew it out and put it in a paraffined dry barrel. I shipped a barrel of this to a customer who examined it at the freight station before accepting shipment. He approved and accepted it but later wrote me that it had "soured" and had light streaks in it. Can you advise me how this honey can be reclaimed and be made usable again? Wouldn't steam coil heat evaporation remove the sourness? It so happened that I drew a quart jar of this honey out of the tank before filling the barrel and it is as pretty and as good as any honey I ever saw. —I. C. Clinton, Florida.

Answer.—It would seem that the manner in which you processed the honey into barrels should have prevented fermentation. It is possible that the honey, when taken off the hives, had too high a water content. We like to handle honey that has a moisture or water content of not over 17.6%. Honey that is too thin is likely to ferment, especially if kept in a temperature that is changeable. If this honey is fermenting, the only thing to do is to heat it to a temperature of 160° F., keeping it at this temperature for at least ten or fifteen minutes, then cooling it. Cooling can be accomplished quite conveniently by using a water jacketed tank. As a matter of fact, the honey can be heated in such a tank. If you do not have a tank of this kind, you can heat the honey in 60-lb. cans, the cans surrounded by water in a reasonably large tank. You should have a tested thermometer to use in order to prevent the temperature of the honey going beyond 160° F. Some honeys, during certain years, contain yeasts that cause fermentation. Heating the honey, as we have just described, kills such yeasts.

Moving Bees a Short Distance

Question.—I must move my bees about a city block. Please advise me how to move them to keep them from drifting.—Richard Craig, Ohio.

Answer.—In regard to moving your bees for a short distance, there are two or three ways of doing this. One method is to move the bees a distance of at least three miles from their present location, leave them there for about ten days or two weeks, and then move them back to the new location. This may seem to be a rather difficult method involving considerable time and work. Another method is to move the bees late in the evening to the new location, being sure no empty hives or anything resembling a hive are left on the old location. The next morning some of the bees will fly back to the old location, but if they do not find any hives to enter, they are likely to fly around a bit and then return to the new location. It may take a day or two for the bees to get acquainted with the new location. Still another way to move bees a short distance is to move the hives a few feet each day until the colonies are on the new location. This is a tedious process and would not be applicable to your situation. The second method mentioned seems preferable.

Bad Effects from Bee Sting

Question.—I was stung by a bee just below the right eye. In fifteen minutes my whole face was swollen so I could not see and my entire body broke out with white spots like hives. When I got to my feet everything got black and I grew faint. I had to hold on to something to keep from falling. How do you account for this?—J. F. Eifert, Ohio.

Answer.—If you have been stung before, and did not suffer anything worse than a mere local swelling, the bee sting in this case must have struck a blood vessel in such a way that the poison was distributed all over your body. When blotches break out all over the body and one experiences a fainting sensation, the case is serious. In such an event one should lie down immediately with an electric fan placed so that you get plenty of air, and remain quiet for a time. If bee stings have a bad effect upon you, you should proceed very carefully, wear gloves, a bee veil and thicker clothing so that the bees cannot sting you. In time you may become immune to stings. This is explained in our A B C and X Y Z of Bee Culture, under the head of "Stings".

Wintering Bees in a Building

Question.—I'd like to place my bees in a very suitable empty building, for the winter at least. It is less than a hundred yards from their present location. Can this be done or will they stray back to their former location and perish?—Edith L. Wood, New Jersey.

Answer.—It would, in our opinion, be preferable to winter your bees out-of-doors rather than in a building. Of course, if the building or shed has one side open to the south or east, so that the bees can fly out and in freely, there would be no serious objection to wintering them in such a building. You should make sure that the hives are not too close together. If they are too close together, the bees from one hive may drift into other hives. Under no circumstances should you place bees in a building with the idea of their finding their way out through a window. During a warm spell in winter the bees will leave the hives in a building and may perhaps get outside, but they are not likely to find their way back to the building and consequently may be lost.

Races and Strains of Bees

Question.—Please explain the following terms,—races, stock, strains—as applied to honeybees.—A. J. Bissinger, Iowa.

Answer.—As we understand the term "race", it refers to certain types of honeybees, as for example, the Italians or Caucasians. These types of bees have rather definite characteristics. The term "strain" may be a division or sub-division under any race of bees, and there may be a number of strains in any race. A strain of bees may have rather definite characteristics. The term "stock" is, perhaps, somewhat synonymous with the term "strain". Beekeepers refer to bees of good or poor "stock".

Disease in Bee Trees

Question.—We have run into a difficult problem in regard to bee trees and bees in walls of houses. In most all communities we have found that if we take care of the disease (AFB) in the colonies in hives the bee trees automatically take care of themselves. In fact, it is a common expression among commercial men that it takes two years "to draw the foulbrood out of the trees and rocks" in a given community provided all bees in hives are kept clean. But in Union County (La Grande) there are few wax moths and combs may last for years. High elevation (2500 to 3000 ft.) and rather severe winters probably explain the scarcity of moths. These facts also explain the many dead poplar snags in which woodpeckers have bored holes and into which swarms go with little chance of surviving the winter. Since this county was thoroughly infected with AFB some years ago these bee trees are a real menace. We have found it to be the most difficult county in the state to clean up although the percentage of disease found has been cut in half. Of course, we have in that county the problem of the few certain beekeepers who still feel the urge to experiment with original control schemes or who for some reason or other do not seem to be able to clean up their own outfits. Now the information I want, if you can give it to me, is as to the legal authority to eliminate bees in trees and walls of buildings. I am going to our attorney general for a ruling as to our authority but I would like to be able to cite former rulings along that line and would like to be able to tell him what other states are doing. Can you give me any help along this line?—A. Burr Black, Oregon.

Answer.—The jurisdiction of the State over bees affected by AFB in bee trees presents a new question. Something would depend on how the State law is worded. Under the old common law a bee tree can not be cut or molested without the consent of the owner. Usually such trees are hollow and therefore of little or no value for lumber. On the other hand, a tree containing bees affected with AFB would be a constant menace to all who keep bees in that locality. The difficulty might be overcome by getting the owner to allow the bee inspector to put cyanide in the openings and then plug them with cement to prevent the bees from getting to the infected material. The matter should, of course, be presented to the attorney general of the state for an opinion. If he says that the tree as a public nuisance can be cut, the problem would be simple. It would seem that a tree bending over a common highway and liable to fall on the street endangering life and traffic could be cut and removed. If this is true, a bee tree that is a menace could be cut also. It is true that the wax moth, while a nuisance to a bee owner, would be a blessing in disguise in the case of a winter-killed colony in a bee tree, as it would make short work of the combs. Bees will not rob out a colony infested with the web of the wax moth.

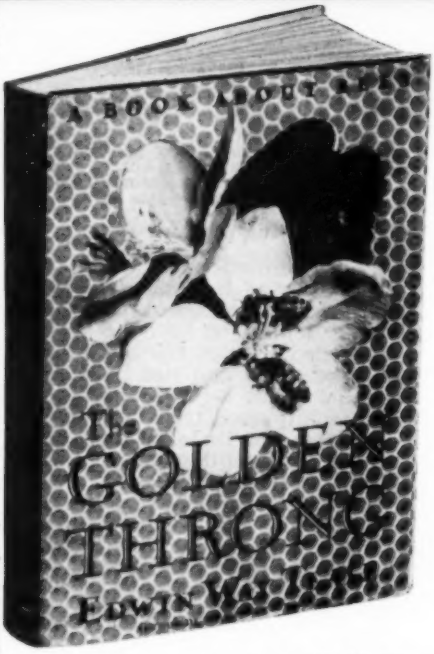
Requeening Without Dequeening

Question.—Please tell me the method of requeening without dequeening?—Ernest A. Fortin, Quebec.

Answer.—There are various methods of such a procedure. One method is to set the upper brood chamber, sometimes called the food chamber, off onto a hive stand beside the parent colony and give it a bottom and cover at the beginning of the main honey flow. This food chamber hive may be given a queen cell, or it may be allowed to rear a queen, which it will do in about 21 days. At the close of the main honey flow, after the surplus honey has been removed from the parent hive, this food chamber colony, now with a young queen, may be placed on the parent hive. The young queen in the upper hive will usually survive whereas the old queen below will be disposed of.

(Continued on page 783)

XUM



Courtesy of Dodd, Mead and Co., Publishers.

Mr. Edwin W. Teale's "The Golden Throng"* ---a Book about Bees

Reviewed by Dr. Bodog F. Beck

It is estimated that well over twenty thousand volumes have been written on honeybees. Books on the complex structure, remarkable physiology, and bewildering biology of these aristocrats of the insect world are in profusion; the list of practical and scientific treatises on bee culture is endless; extensive literary works on the history of bees, their mystic social life, government, exemplary habits, strange and wonderful instinct, which reveals a "wonder-life", are innumerable. Bees have been studied and written about more than all other living creatures combined. Honey, the oldest food, drink and medicine, and wax, on which our literature and art were founded, have been other subjects which aroused the interest of most ancient peoples. The first writing was done over wax tablets and wax models long preceded sculpture and other plastic arts. Honeybees supplied humanity with light, food, and energy, our fundamental requirements. It is not surprising, therefore, that these seemingly insignificant creatures played such an important role in the lives, mythologies, folklore, prose, poetry, philosophy, religion, and classical symbolism of all ancient and modern cultural states. Sundry articles on bees, honey, and wax are as numerous as the stars on our immense firmament.

Ancient bee literature contrasted with our modern books on bees is as strikingly different as an infant compared with a cultured adult. In ancient times the honeybees had their invisible nests in cavities of trees and rocks. Even in the first primitive hives these industrious creatures were concealed from human eyes and their life and wonderful activities were subjects of utter mystery. Aristotle, Virgil, Pliny, though excellent observers, had to guess and speculate. They had only occasional glimpses of the "King", and the drones were considered parasitic insects, invading the hives. Up to the seventeenth century it was believed that bees propagate without copulation, for instance, generating from the carcass of a dead bull. The mistaken ideas of ancient writers were a veritable "Comedy of Errors". Bee knowledge commenced to progress only after the construction of the first glass observation hives and the discovery of the microscope. The

(Continued on page 781)

Courtesy of Dodd, Mead and Co., Publishers.

*Dodd, Mead & Company, 1940

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8,000 lbs. NEW CROP, light extracted. Shirl Baker, Rodney, Michigan.

AMBER and clover honey in new 60's. George M. Sowarby, Cato, N. Y.

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FINE clover honey, case or car. Leslie A. Davis, R. R. 2, Union City, Ind.

FOR SALE—Extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

HONEY—Light and light amber extracted. F. W. Lesser, Fayetteville, N. Y.

BUCKWHEAT honey, new 60's, 6 cents. Woodward Apiaries, Clarksville, N. Y.

CHOICE MICHIGAN clover honey in new 60's. David Running, Filion, Mich.

CHOICE clover honey in 60's. R. C. Bish, successor to Moore Apiaries, Tiffin, Ohio.

WHITE clover in 60's, 6c; light amber, 5c; dark amber, 5c. F. J. Smith, Castalia, Ohio.

GOOD extracted clover in sixties, 6c; amber, 5½c. H. G. Quirin, Bellevue, Ohio.

FOR SALE—Buckwheat-goldenrod honey in 60's. Julius Seewaldt, North Java, N. Y.

LIGHT and amber honey in sixties. Carl N. Holcomb, 1913 Highland Ave., Troy, N. Y.

NEW CROP clover and amber honey packed in new 60's. H. B. Gable, Romulus, N. Y.

WHITE and amber honey in new 60, 10, and 5 lb. tins. Harry T. Gable, Romulus, N. Y.

CLOVER HONEY in sixties and comb honey. George Eykamp, 1221 Akin, Evansville, Indiana.

FOR SALE—Fancy Iowa white clover extracted honey. Kalona Honey Co., Kalona, Iowa.

AMBER HONEY, clover flavor, 7c per pound in case lots. Kenneth Gallant, Jordan, N. Y.

FINE CLOVER extracted in glass or tin. Earl Alexander, 2521 Fleming Road, Middletown, Ohio.

FINEST white clover extracted, liberal discount at our place, by truck. N. B. Querin, Bellevue, O.

ORANGE, palmetto and mangrove honey in new sixties. Peter W. Sowinski, Fort Pierce, Florida.

EXTRACTED clover and amber honey. Quotations on request. Scott Traxler, Scottsburg, N. Y.

COMPLETE line comb and bottled honey, pure clover. Also packed in 5's and 60's. Central Ohio Apiaries, Inc., Millersport, Ohio.

CHOICE white clover honey in new 60's. Noah Bordner, Holgate, Ohio.

HARRIS'—Fancy clover extracted, new crop, in new sixties. Case or carload. J. N. Harris, Saint Louis, Mich.

FOR SALE—1940 crop, white clover extracted honey in 60-lb. cans. L. S. Griggs, 711 Avon St., Flint, Mich.

MICHIGAN White Extracted in 60's. Strictly high grade in new cans. M. H. Hunt & Son, Lansing, Mich.

TUPELO HONEY, new 60's and barrels, 5 and 10 lb. buckets. Marks Tupelo Honey Co., Apalachicola, Fla.

CHOICE clover honey. Case $6.60; also light amber honey $6.00 case. Martin and Fuller Apiaries, Owosso, Mich.

FINEST QUALITY white clover honey, $7.00 per case, 120 lbs. Sample 10c. Arthur Thayer & Sons, Freeland, Mich.

NEW CROP extracted honey, white clover and amber. Prices on request. Sample 10c. Frank R. Parmelee, LeRoy, N. Y.

FOR SALE—Pure white basswood, 10c lb.; clover, 7c lb.; amber, 5c lb. F.O.B. ADAMS & MYERS, Ransomville, N. Y.

HONEY WANTED—Carloads and truckloads for our Oklahoma plant. Could use a truckload of shallow frame comb honey. Old Taylor Honey Co., Harlan, Iowa.

WHITE extracted and amber, also few cases of white honey in shallow frames. Herman Crowther, Cass City, Mich.

FANCY white clover extracted honey, can or carload. Price on request. Sample 15c. Jos. H. Hoehn & Sons, Ottoville, Ohio.

WHITE CLOVER COMB, $3.00 case; amber, $2.50; clover extracted, 7c; amber, 6c; buckwheat, 6c. C. B. Howard, Geneva, N. Y.

LET US show you how you can save on your honey purchases. We also buy honey. H. Blitz, P. O. Box 3452, Philadelphia, Pa.

FOR SALE—Fine clover honey, extracted in 60-pound cans. Satisfy yourself. Sample for the asking. W. S. Earls, New Canton, Ill.

NEW CROP clover-basswood honey, water white in new cans. Send for sample and price. A. A. French & Son, Theresa, N. Y.

HONEY PACKERS—Write us for prices on carload lots of California and western honeys. We stock all varieties. Hamilton & Co., 1360 Produce St., Los Angeles, California.

OHIO delicious NEW extracted white clover HONEY. Well ripened. The Health Food. In sixty-pound new cans, 6c lb.; also five and ten pound pails. Sample 15c. Melrose Apiary, Delphos, Ohio.

STOLLER'S excellent quality clover. Honey packed in 60's. Finest obtainable, ready for shipment Write Stoller Honey Farm, Latty, Ohio.

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We trust that you have had a prosperous season and that we may have the pleasure of supplying your needs in

PACKAGE BEES and QUEENS
in the Spring of 1941.

Watch our ads and drop us a card for particulars.

ROSSMAN & LONG
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QUICK SERVICE
Dependable Selected
ITALIAN
Queens
THE PUETT COMPANY
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We are now booking orders

for Spring delivery of our Mountain Gray Caucasian bees and queens. We solicit your truckload business.

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What Race of Bees

do you want next season? What type of package or nuclei do you prefer? We believe that we can please you. Write.

WEAVER APIARIES
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Package Bees and Queens for 1941

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Willacoochee, Ga.

HONEY FOR SALE—All kinds, any quantity. H & S Honey & Wax Co., Inc., 265-267 Greenwich St., New York, N. Y.

SELECT LOTS white sweet clover, also processed white honey in 60-pound tins. A. I. Root Co., 224 West Huron Street, Chicago, Ill.

CHOICE white sweet clover, also extra light amber honey in new 60-pound tins by the case or carload. Dadant & Sons, Hamilton, Illinois.

MICHIGAN'S FINEST CLOVER HONEY —Clean, well ripened. New sixties 5½c, amber, 5c. You will be pleased. John McColl, Tecumseh, Mich.

FOR SALE—Finest quality white and sweet clover honey in new 60-lb. cans and corrugated cases, $3.65 a can. Martin Carsmoe, Ruthven, Iowa.

20 TONS clover white extracted honey, case, ton or carload. Write for prices and sample. LEROY C. KEET, 1003 Leray Street, Watertown, N. Y.

NEW YORK State comb and extracted honey, buckwheat and clover, any quantity, all size packages. Five-pound pails my specialty. Edward T. Cary, Midland Ave. and Tallman St., Syracuse, N. Y.

RASPBERRY HONEY blended with milkweed honey, two of the best honeys of Northern Michigan. Packed in 60-lb. cans, for 7c a lb. In 10-lb. cans for $2.00. We pay postage. Sample for 20c. Elmer Hutchinson & Son, Lake City, Michigan.

OUR 1940 CROP of Michigan clover honey is now ready for the market. New cans and cases. Let us supply you with your requirements during the coming season. E. D. TOWNSEND & SONS, Northstar, Michigan. The center of the Clover belt.

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BEEKEEPERS TAKE NOTE—We will not guarantee any honey buyer's financial responsibility and advise all beekeepers to sell for cash only, or on C.O.D. terms except when the buyer has thoroughly established his credit with the seller.

100 CASES clover section honey. Lose Bros., 206 E. Jefferson St., Louisville, Ky.

WHITE and light amber extracted and comb honey. George Eykamp, 1221 Akin, Evansville, Indiana.

WANTED—White clover and amber extracted. State price. Fairland Apiaries, 260 Park Dr., Dayton, Ohio.

WANTED—White clover honey. New cans only. Clover Blossom Honey Co., 712 Kossuth St., Columbus, O.

WANTED—Carlots honey; state quantity, shipping point and price. Mail sample. Bryant & Cookinham, Inc., Los Angeles, Calif.

WANTED—Comb, chunk comb, white and light amber extracted honey. Any amount. Central Ohio Apiaries, Millersport, Ohio.

HIGHEST cash returns made the day we receive your beeswax. Write for shipping tags and quotations. Walter T. Kelley Co., Paducah, Ky.

CASH PAID FOR carloads and less than carloads of extracted honey. Send sample and best price. C. W. Aeppler Company, Oconomowoc, Wis.

WANTED—White and amber extracted Honey, any quantity, also Beeswax. Write The Fred W. Muth Co., Pearl & Walnut Sts., Cincinnati, Ohio.

WANTED—All grades of comb and extracted honey. Bee supplies and honey containers for sale. Prairie View Honey Co., 12243 12th St., Detroit, Michigan.

WE PAY higher prices for white and amber honey in sixties, and wax. Complete line of Bee Supplies and Glassware. Alexander Company,Phone Forest 6360, Route 3, Toledo, Ohio.

FOR SALE—Fine quality queen mailing cages; Root quality bee supplies, both comb and extracted honey. Orders filled promptly. Write us or drive over M53, fifty miles north of Detroit. Hamilton Bee Supply Co., Almont, Mich.

FOR SALE

100 CASES sixties, used once, will swap for clean beeswax. E. J. Cope, Attleboro, Mass.

QUEENBEE PAINTING outfits $1.00 postpaid. Southwick Apiaries, Waban, Massachusetts.

BLACK walnut kernels from grafted walnut trees. 1 lb., 70c; 2 lbs., $1.25, postpaid in 5th zone. L. K. Hostetter, Rt. 3, Lancaster, Pa.

ATTRACTIVE prices on bee supplies and comb foundation. Send for catalog. Saves you money. The Fred W. Muth Co., Pearl and Walnut Sts., Cincinnati, Ohio.

WRITE FOR CATALOG. Quality bee supplies at factory store prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Onsted, Michigan.

COMB FOUNDATION at money-saving prices. Plain, wired and thin section. Wax worked at lowest rates. Comb and cappings rendered. Robinson's Wax Works, Mayville, N. Y.

THE ONLY complete line of wax rendering equipment ever offered—the "Perfection" Line. A size and type suitable for every commercial Beekeeper. Write for descriptive circular. Robinson's Wax Works, Mayville, N. Y.

SAVE MONEY by letting us work your wax into wired or regular comb foundation. Large catalog describes everything. You pay only wholesale factory prices, as we have no agents. Walter Kelley Co., Paducah, Kentucky.

FOR SALE—Complete 500-colony outfit, including ten acres land, house, honey house, chicken house, electricity, in one of Michigan's best honey producing locations. One-third down or will let out on shares. Bees guaranteed free from disease. Box No. 18, Gleanings, Medina, Ohio.

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GOOD ITALIAN QUEENS. White Pine Bee Farms, Rockton, Pa.

WRITE for prices on Bees and Queens. Graydon Bros., Rt. 2, Greenville, Ala.

THREE-BANDED Italian queens, 50c each, select. Alamance Bee Company, Graham, N. C.

60 CENTS EACH—for bright three-band young Italian Queens. Fall raised and tested. D. W. HOWELL, Shellman, Georgia.

85 COLONIES BEES, guaranteed disease free, 175 supers, comb and extracting, 45-frame Root radial extractor, 3 straining tanks, 1½ H. P. gasoline motor, smokers, veils, etc. Price, $350.00. W. J. Robbins, Jr. Trucksville, Pa.

York's Package Bees and Queens

Quality Bred Italians

The past season was our greatest with an exceedingly heavy demand. A hearty thanks to all of our customers for making this possible. Orders were handled satisfactorily as we had ample bees to take care of the increased demand and delays were negligent. Did you place your orders right or did you lose valuable time and money on delays?

We will be better prepared than ever to handle your requirements for any quantity plus quality and service at the right price. Booking orders now for spring delivery.

York Bee Company

Jesup, Georgia, U. S. A.

(The Universal Apiaries)

Three-Banded Leather-Colored Italians

Package Bees and Queens

If you have been having trouble with queen supersedure, then give ours a trial along with those you have been using. Prices upon request.

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No More Queens for this Season

Thank you for the business sent us and your wonderful cooperation. Booking orders for bees and queens for 1941.

BOLLING BEE CO., Bolling, Ala.

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Stover's—The House of Quality

Package Bees

Three-banded Italians
and Caucasians
Produced to please you

QUEENS of both races reared in separate locations bred to fill those hives with bees.

Hives and Supplies

All outside parts of our hives are made of Cypress, which defies decay; frames and inside fixtures of Western Pine.
Write for Literature.

THE STOVER APIARIES
MAYHEW, MISSISSIPPI

Season's Greetings and Best Wishes

To Our Many Friends!
Our Best Friends are Satisfied Customers.
PETTIT'S PACKAGE BEES
MORLEY PETTIT
Tifton, Georgia. U. S. A.

CARNIOLANS
CAUCASIANS

Again a very Merry Christmas and a Happy and Prosperous Season to you for 1941. Want to help make it so and better prepared to do so this coming season with our fine queens and package bees. Ask for our free paper. Take into account the merits of these races in making your 1941 plans.
ALBERT G. HANN, Glen Gardner, N. J.

CAUCASIAN QUEENS, untested 40c each until Nov. 1st. Safe arrival. Lewis & Tillery Bee Co., R. 4, Box 132, Greenville, Ala.

GOOD PACKAGE BEES AND QUEENS are profitable. You can't beat ours for quality and production. Used for years by leading beekeepers of the U. S. and Canada. A trial order for 1941 will show you how really good package bees can be. Write me now, stating how many packages you may need and I will send you full information. Then, if you wish, we can get your order straightened out and the shipping date reserved before the busy season. Young pure three-banded Italians. Select young laying queens of our own production. No drones. No disease. H. C. Short, Fitzpatrick, Ala.

MISCELLANEOUS

WANTED—24 or 30 frame extractor. Alexander Company, Route 3, Toledo, Ohio.

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WANTED—Work as helper in southern apiary. Four years' experience. Andrew Beeman, Grapevine, Arkansas.

MAGAZINES

MICHIGAN BEEKEEPER. The State Bee Magazine with a National Circulation. 50c a year. MICHIGAN BEEKEEPER, Rt. 3, Lansing, Mich.

DAIRY GOAT JOURNAL, Dept. 419, Fairbury, Nebr. (big monthly magazine, 3 years $1), gives complete information. Introductory 5 months, 10c.

THE INDIAN BEE JOURNAL—The only bee journal in India. Sample copy free. Yearly 7c6d. Apply Editor, Indian Bee Journal. Jeolikote, Dist. Nainital, U. P. India.

MANY beekeepers have proven raising fox, mink, nutria, muskrats, rabbits, highly profitable. Send dime for sample copy Canada's oldest fur farming magazine telling how. Fur Trade Journal of Canada, Box 31, Toronto 2, Ontario.

THE BEE WORLD—The leading journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy post free, 12 cents stamps. Membership in the Club, including subscription to the paper, 10/6. The Apis Club, L. Illingworth, The Way's End, Foxton, Royston, Herts, England.

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Buy your Italian bees and queens from

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Mt. Pleasant, Alabama

2-lb. package with queen $2.00
3-lb. package with queen 2.50
Queens ..... .65

BETTER-BRED QUEENS Three-banded Italians

Send us your name and let us place you on our mailing list and be among our many satisfied customers for 1941.
CALVERT APIARIES, CALVERT, ALABAMA

THE GOLDEN THRONG

(Continued from page 776)

Courtesy of Dodd, Mead and Co., Publishers.

truth could be demonstrated and not solely imagined. The latter-day beemen are in an enviable position.

Edwin W. Teale's new contribution on bees, "The Golden Throng" is the prototype of a modern bee-book. Only the recent progress of photography, improved and faster films, better aids to lighting, enabled the author to record such clear candid-camera pictures revealing the intimate activities of these fascinating and useful creatures, which he appropriately calls the "golden throng".

The book is excellent reading and the more than eighty pictures taken by the author-photographer are splendid products of modern art. They are really telescopic views of the obvious "what" and "when" and obscure "why" of bee-life. No lover of bees, turning the pages of this book and glancing at the photographs could resist the temptation to procure a copy.

It is an old apiarist's advice that nobody should keep bees unless he has a distinct fondness and admiration for them. The same rule applies to those who write about bees. Mr. Teale's work clearly proves that he is not lacking in this distinction. The pictures are a conclusive evidence of his enthusiasm. The book is highly recommended as a worthwhile addition to the library of every bee-lover.

New York City.

Note.—Mr. Edwin Way Teale says that he arrived at writing this book in a rather round-about way. Ever since he was a boy on his grandfather's farm in Indiana, he has been interested in insects. About ten years ago, he started making insect photographs. He now has between 5,000 and 10,000 negatives in his files and his insect pictures have been sold in seven foreign countries in addition to appearing in magazines and newspapers in different parts of the United States. In 1937, his first book on insects, "Grassroot Jungles", appeared. It was later published in England and has recently been translated into Braille by the Library of Congress.

"Grassroot Jungles" was followed by "The Boys' Book of Insects" last year. It contained a chapter on honeybees and another chapter on how to construct an observation hive. It was a logical step from there to keeping an observation hive of his own. During the year and a half he was studying and photographing for "The Gold en Throng", he also worked in the apiary of a friend who was kind enough to place his hives at Mr. Teale's disposal. His observation hive was kept on a table near his study desk and in the coldest weather the bees often flew about the room where he was working.

In obtaining the eighty-five photographs used in this book, Mr. Teale made upwards of 650 negatives. It took, for example, sixteen shots to get one good picture of the bee, with blurring wings, fanning to ventilate the hive. The two things which make "The Golden Throng" a unique book are: It brings the record of what science has found out about the bee up-to-date by including recent research; and, it takes the reader, by means of photographs, behind the scenes and lets him see what happens in the hive.

Mr. Teale was born in Joliet, Ill., June 2, 1899 and spent his summers in boyhood on his grandfather's farm in the dune country of northern Indiana. He graduated from Earlham College, Richmond, Ind., taught English and coached debating at Friends University, Wichita, Kans. He got a master's degree from Columbia University in 1926, and spent two years as assistant to Dr. Frank Crane, the editorial writer, traveling from coast to coast with him, and—since 1928—has been staff feature writer on Popular Science Monthly. He is a member of The Authors' League of America, the New York Entomological Society, and the Brooklyn Entomological Society. Mr. Teale now lives in Baldwin, L. I., 22 miles out from New York City.

Carniolan Queens

Carniolans lead in honey production, in economic use of winter stores, spring colony development, and amiable disposition.
Our Own Strain.
EPHARDT'S HONEY FARMS
Torras, Louisiana

XUM

ALONG THE BLUE DANUBE

(Continued from page 747)

his most prized possession is a copy of the first edition of Root's A B C of Bee Culture. This is one of the many early and foreign beekeeping books Karolyi bought from Mathy's heirs.

The beekeeping school in Kalocsa is under city auspices. The Professor includes a course in hive construction, in Hungary still considered as vital as the art of apiculture itself. But Root and Dadant hives are slowly becoming more popular. The school's 50 colonies are city property —he didn't say where the surplus went. They are kept in the heart of the city's main park. There is also a state bee farm.

The honeybees are chiefly Banat, Carniolan, German and Italian.

Comb honey, really a form of chunk honey in Hungary, brings 35 cents a pound section. It must be ordered in advance as extracted is the only type generally handled. Extracted brings the equivalent of 25 cents per pound, frequently more!

Karolyi's knowledge of beekeeping extended to Yugoslavia, where the principal honey plants, according to him, are clover, locust, lime tree, sunflower and pumpkin. Also, through visiting apiarist relatives, to Lithuania on the Baltic Sea. This has been known for centuries as the land of beehives. In the vicinity of the capital, Kovnos, are extensive forests of lime trees. The heavy bodied, white honey of this region commands a price, even among the poor peasants, that as an American beekeeper, I envy. Wealth among the peasantry is reckoned by the number of hives one owns.

"Are you going to keep bees here in America?" Dot wanted to know.

"Yes. Two months ago I bought a small farm up-state. Already I have five colonies. When circumstances permit, and I have a good market for more, I will buy them. Keeping bees isn't a chore. Its in one's blood. Maybe American honey from that section will be unlike my favorite, Akac, but the bees will be the same."

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STIMULATIVE FEEDING—FOR AND AGAINST

(Continued from page 739)

of nurse bees, scarcity of pollen, or because of too low a temperature, some of the larvae may become predisposed to ill-health. It seems probable that such larvae are more susceptible to disease than healthy specimens, in accordance with the same biological law that makes a human being, in whose diet the protective vitamins are deficient, subject, let us say, to influenza.

Finally, it has long been believed and has now been proved by Dr. Tokuda's carefully conducted experiments, that the unnatural strain of taking and inverting sugar syrup always results in the death of a certain number of bees. Tokuda—a well known Japanese investigator—claims that about 3,500 bees are killed for every 22 pounds of sugar fed.

This does not mean that we are not to feed sugar syrup to our bees. Those killed by the syrup are sacrificed, it is true, but to the ultimate good of the whole colony. We might as well prohibit autos because they occasionally run over people as stop feeding bees because the hive has to lose some of its population before the artificial food can be used by the community. But this argument makes an additional point against the unnecessary feeding of syrup, such as the proponents of stimulation advise.

Dublin, Eire.

• • •

ASKED AND ANSWERED

(Continued from page 775)

Upper Entrance in Two-story Colony

Question.—Is an upper entrance needed in a two-story hive?—Angus Kennedy, Wisconsin.

Answer.—An upper entrance in a two-story brood chamber hive may not be absolutely essential, but in our opinion, it is an advantage. We do not know exactly what you mean by an upper entrance. There are various kinds. We have been using a ⅝ inch auger hole in the middle of the upper brood chamber. We leave this hole open winter and summer. Some use a top entrance, made by extending or building a tunnel from the hole in the inner cover to the outside, for winter use. Considerable experimental work is being done along this line and apparently this matter of hive entrances is yet in an experimental stage. We like the upper entrance because the bees can get out easily in the winter, and furthermore, the colony is not likely to be suffocated as the result of dead bees or ice clogging the main or lower entrance when this entrance is used only.

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Volume LXIII, 1940

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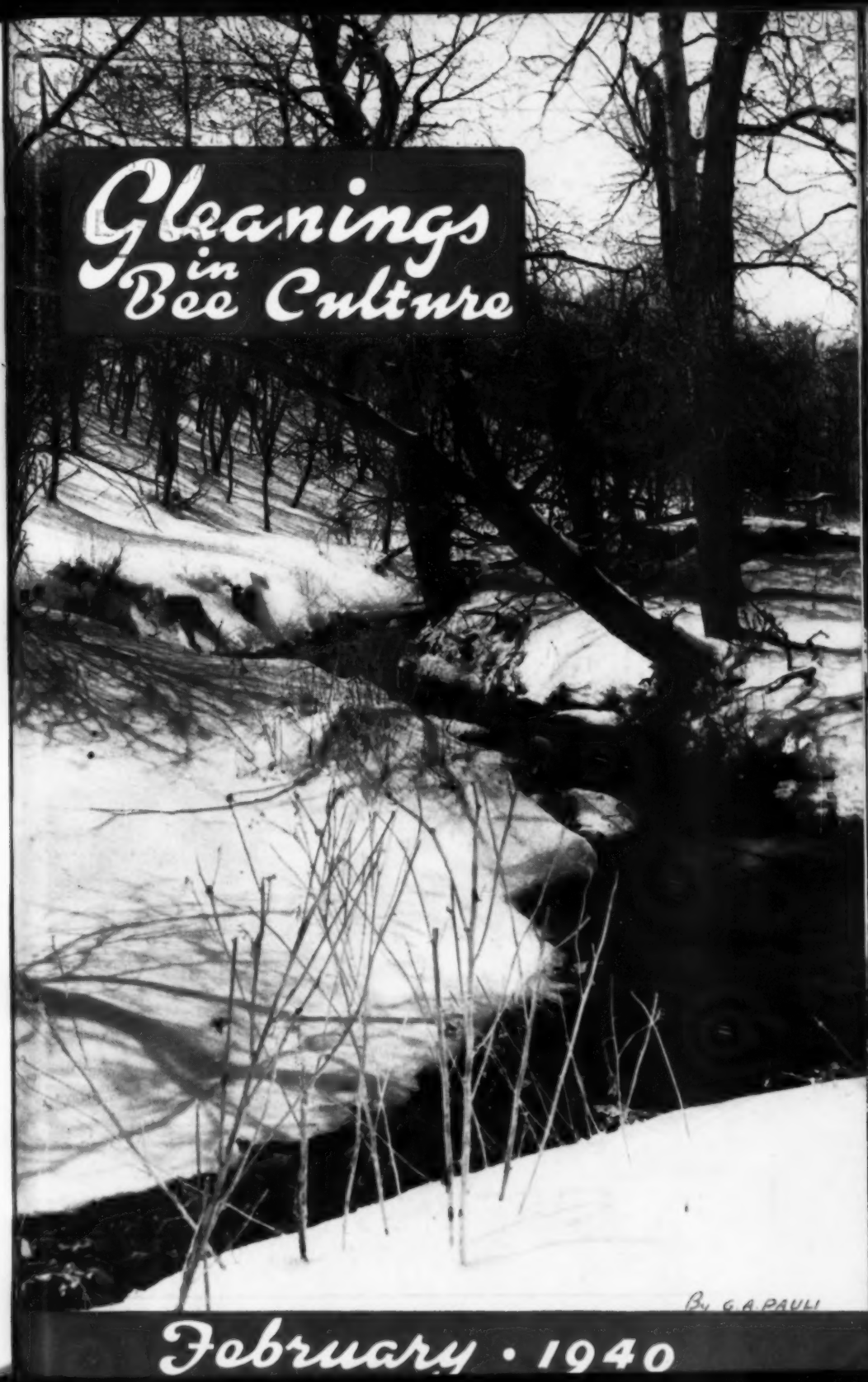
Gleanings in Bee Culture
By G. A. PAULI
February · 1940

Customers

write our most convincing

Advertisements

---*"Best Obtainable"*
---*"High Quality Workmanship"*
---*"Use Root's Exclusively"*
---*"Best Quality"*
---*"Assemble Perfectly"*
---*"Are the Best"*
---*"Are the Standard"*
---*"What a Difference"*
---*"Save Money"*

For over 70 years we have been creating this prized reputation

Guaranteed Satisfaction

5 10-frame hives complete

$14.80

Write for prices on larger quantities

The A. I. Root Co.

Medina, Ohio

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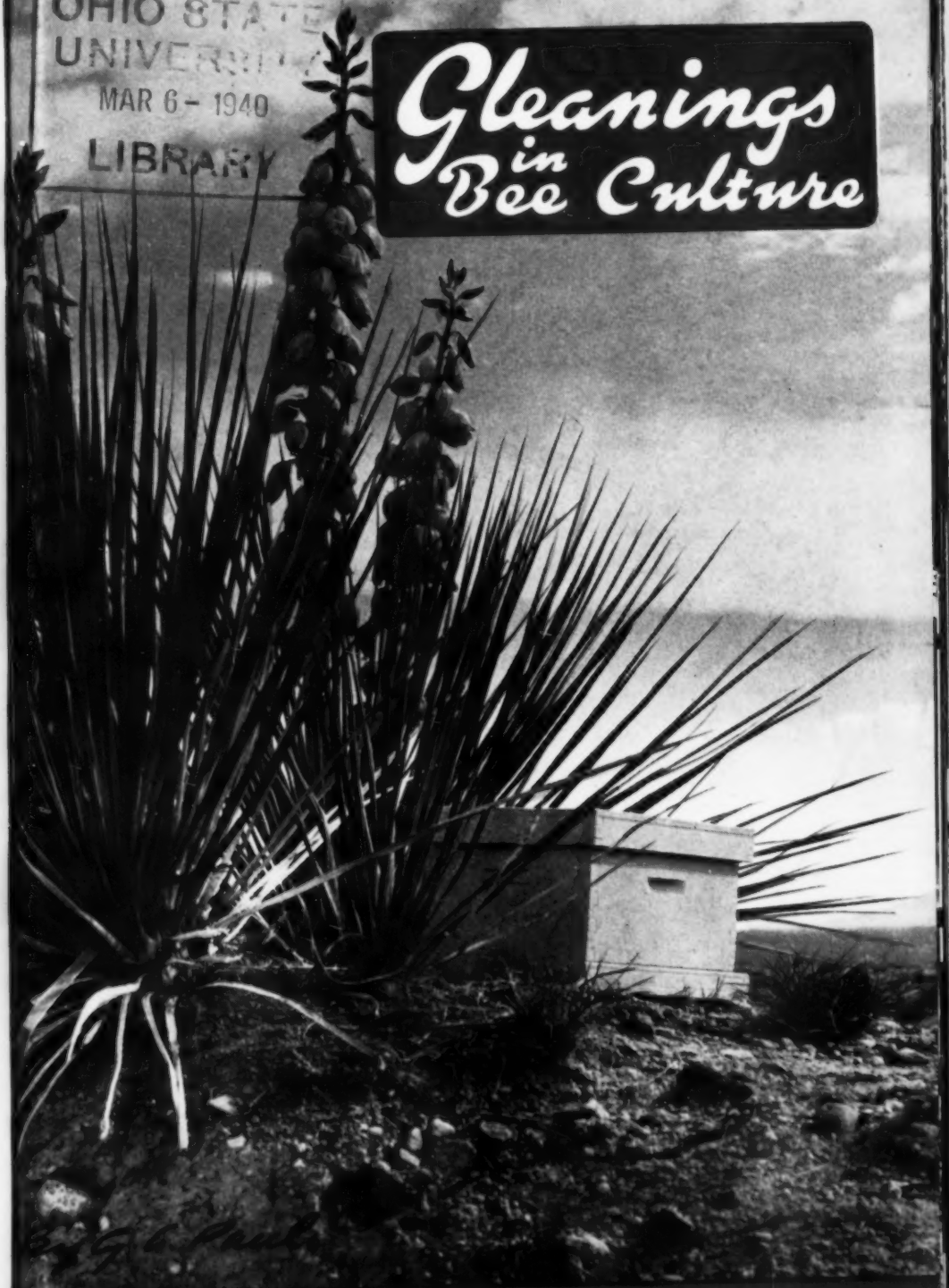
Gleanings in Bee Culture



March · 1940

A NEW
FRAME REST

Patent pending

Showing metal frame rest supported from end to end by wood.

The new metal frame rest offered by Lewis on all 10-frame hive bodies for 1940 removes another nuisance from the bee yard. Entirely supported by wood this rest cannot bend out of shape no matter how roughly it may be handled.

All 10-frame bodies 5/c shipped from any Lewis warehouse or from Hamilton, Ill. will be so equipped. Further illustration and description shown on the back cover of the 1940 Lewis-Dadant Beeware catalog. If you do not get one by February 29, drop us a card.

Remember, all dovetails on all Beeware hive bodies, super shells and metal cover rims are bored for nailing. You will find these two improvements give you pleasure in setting up and using Lewis-Dadant equipment in 1940. You also get slotted bottom frames and Dadant's wired foundation to help make 1940 more fun and profit. See your Beeware dealer soon.

G. B. Lewis Company

Watertown, Wisconsin

Branches: Colonie & Montgomery Sts., Albany, New York.—1117 Jefferson St., Lynchburg, Virginia.—110 W. Main St., Springfield, Ohio.—214 Pearl St., Sioux City, Iowa.

Write to our office nearest to you.

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Gleanings in Bee Culture

April · 1940

Take Your Choice

OUR DEALERS offer you the finest kind of Bee Supplies,—Bee Supplies that are proven in apiaries everywhere to be the "Best by the Bee Test". Your Root Dealer can give you that personal service,—that prompt delivery on supplies that mean dollars to you each year. Take your bee problems to him.

Roots Meet Any Price and Service

Commercial Beekeepers can save money by buying our "Direct from Factory" grade.

Roots Serve All
Get 1940 Prices

Root QUALITY BEE SUPPLIES

The A. I. Root Co.
Medina, Ohio

Root QUALITY BEE SUPPLIES

GLEANINGS
in
BEE CULTURE
MAY 1940
G. A. Pauli
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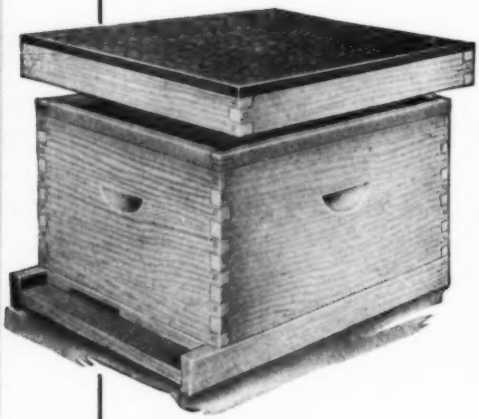
GUARANTEED SATISFACTION

OR YOUR MONEY BACK



Yes, that is Root's Guarantee to you. When you **plan** to increase your apiary you should **plan** for years of profitable service from each item you purchase. That is what makes for lower costs in the production of honey. Our position as the leading Bee Supply Manufacturer is due first to boundless faith that thousands of beekeepers have in our recommendations, and second, to the High Quality Merchandise. We cannot maintain our leadership for 70 years unless we **advise, produce, and give the best.**

STANDARD Hives,—Accurate measurements produce conditions among the bees that make for larger yields of honey. **Buy Root Hives and Save.**

STANDARD Frames,—Combs are valuable and rigid frames are important. Root's Triple Locked-Corner Frame possesses features that no other frame has—rigid, square, and easily assembled. Notice how the end-bars fit into the notched top-bar. **Buy Root Standard Frames and Save.**

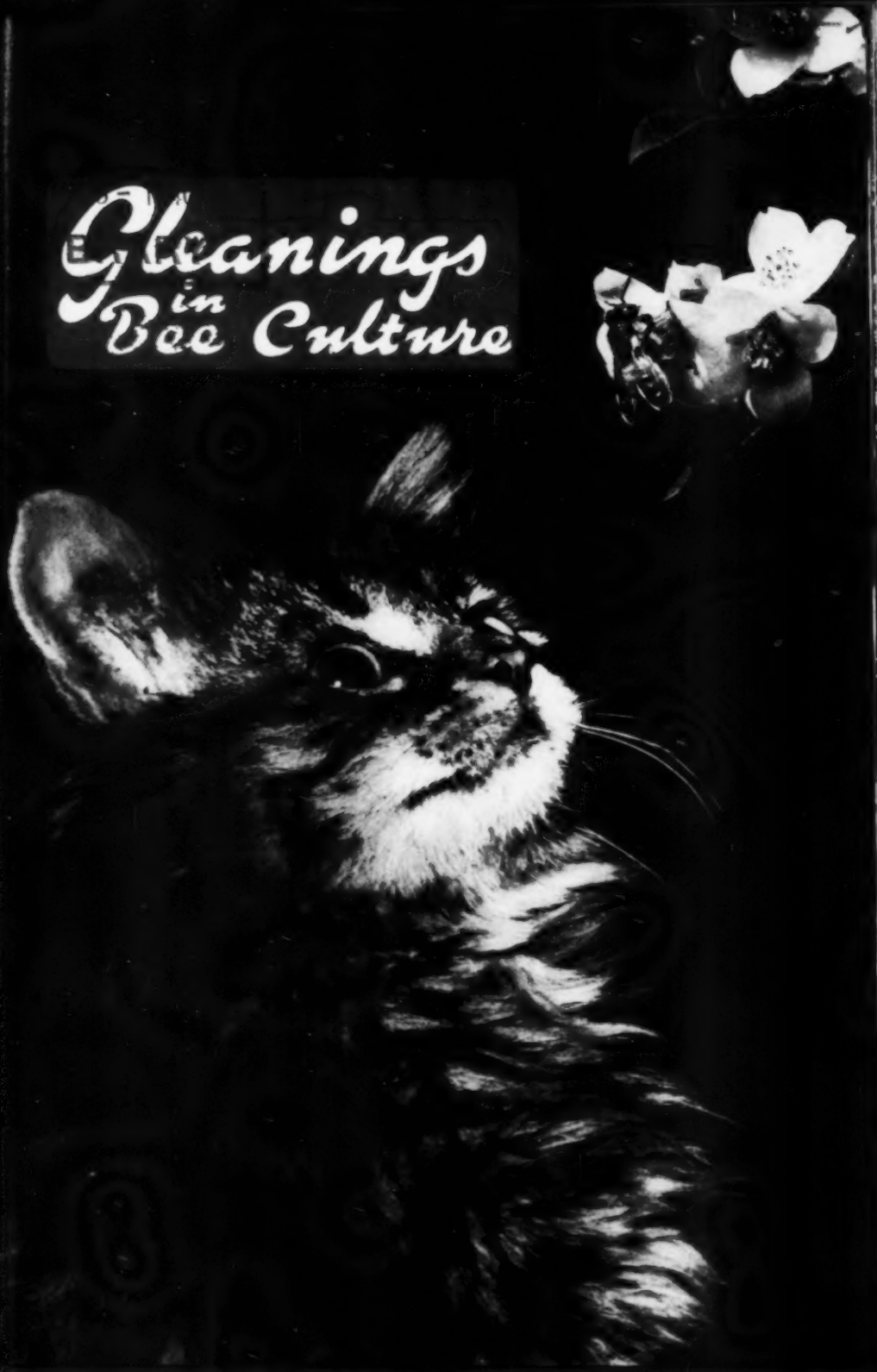
STANDARD 3-Ply Foundation,—No condition is too severe for this Foundation, heavy swarms on new combs, high summer temperatures (even at the equator) will not make it sag. No other Foundation will stand what 3-Ply Foundation stands. **Buy 3-Ply and Save.**

See Your Root Dealer for 1940 Needs

The A. I. Root Company

Still Leading after 70 Years

Gleanings in Bee Culture



June · 1940

Something New

A Beautiful New White Foundation

For Comb Honey

. . . with pure beeswax aroma
. . . with nothing removed
. . . with Root's high cell wall
. . . with the Airco base

Best by the Bee Test

The A. I. Root Co., Medina, Ohio

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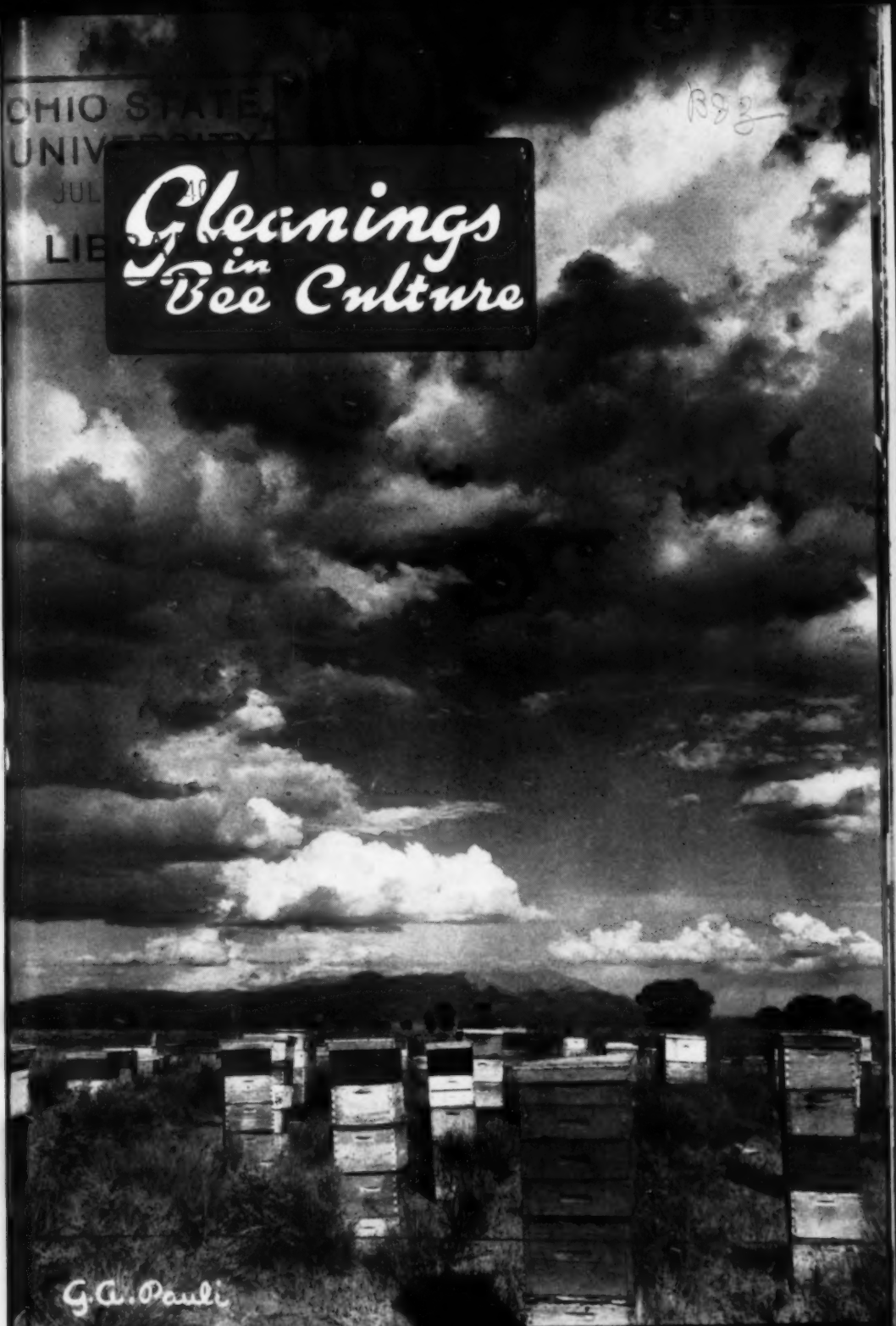
Gleanings in Bee Culture



July · 1940

There Must Be a Reason Why Root Quality Sales Still Lead after 70 Years

Uniform Superb Quality
Guaranteed Satisfaction

Hives, Supers, Sections
Triple-locked-corner Frames
Three-ply Airco Foundation
Thin Super Foundation
Simplicity Extractors
Smokers, Books, etc.

All outstanding LEADERS

Build Your Resources with Root Supplies

The A. I. Root Co.

Medina, Ohio

Mail your "Hive Analysis" sheet for FREE check-up on your bees.
It's FREE through any Root Dealer

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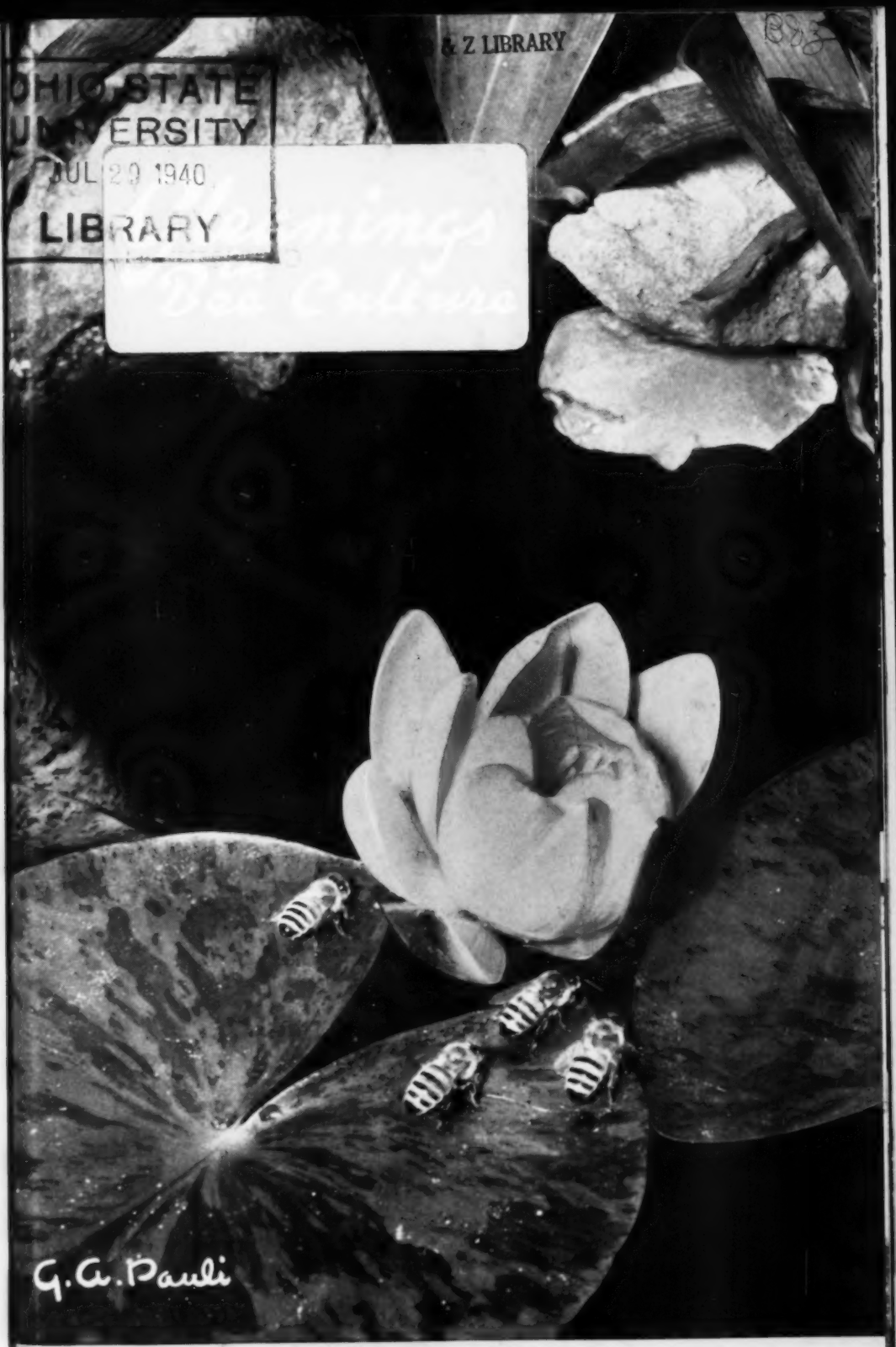

August · 1940

XUM

Everything to Market Honey

NEW GLASS CONTAINERS

• • •

TIN CONTAINERS

• • •

CARTONS

• • •

DISPLAY CASES FOR COUNTERS

• • •

NEW HONEY LABELS

• • •

CELLOPHANE WRAPPERS

• • •

BOOKLETS

• • •

ROADSIDE SIGNS

• • •

HONEY SERVERS

Write for 1940 Prices

Buy Honey---Keep Local Trade Supplied

Root QUALITY *The A. I. Root Co., Medina, O.* Root QUALITY

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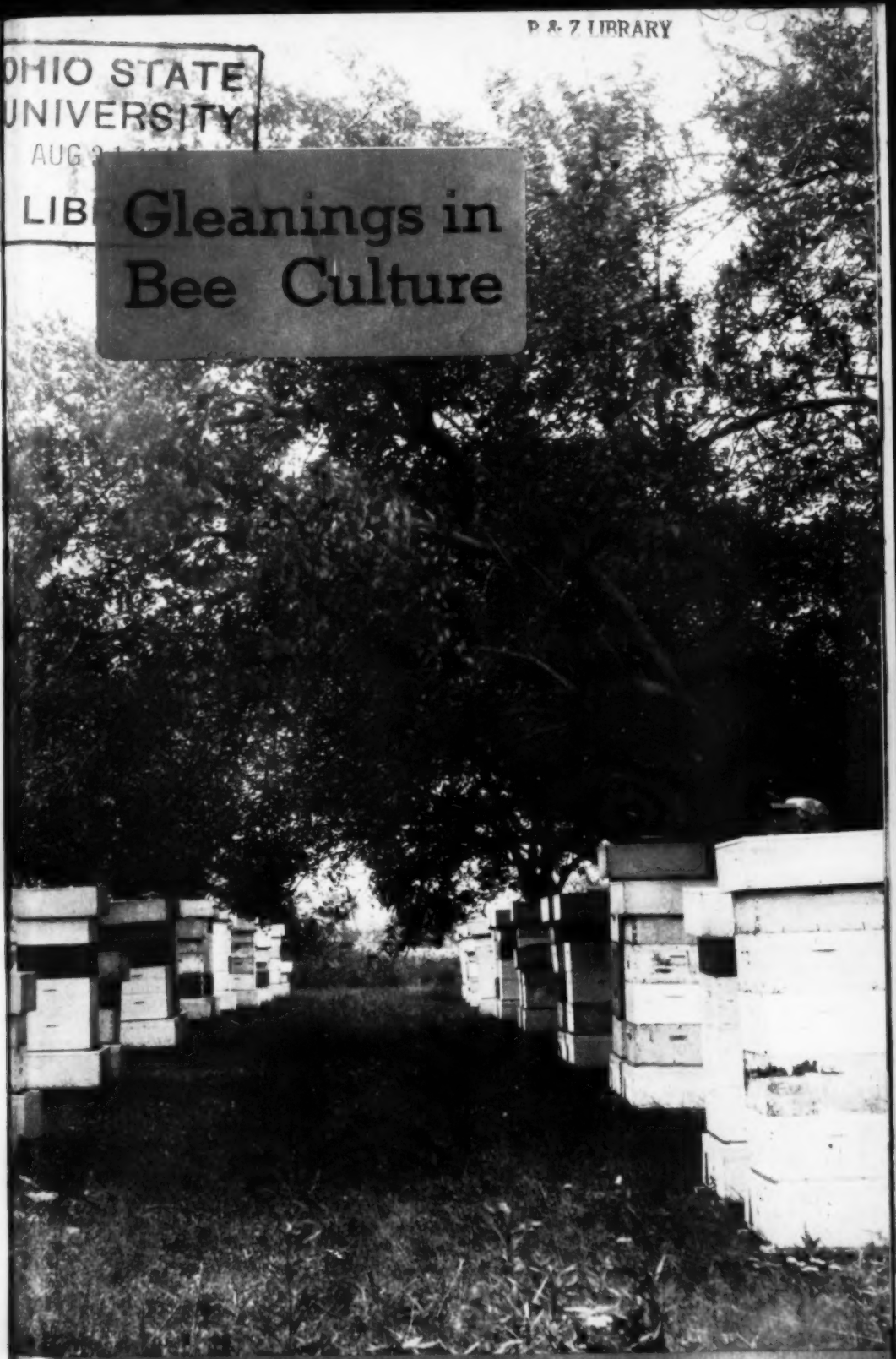
Gleanings in Bee Culture



September, 1940

NEW PRICES

Tin Cans and Pails

2½-lb. can, 24 to carton, wt. 16 lbs.	**$1.08 per carton**
2½-lb. can, 100 to carton, wt. 35 lbs.	**3.80 for 100**
5-lb. pail, 12 to carton, wt. 13 lbs.	**.84 per carton**
5-lb. pail, 50 to carton, wt. 29 lbs.	**2.90 per carton**
10-lb. pail, 6 to carton, wt. 12 lbs.	**.66 per carton**
10-lb. pail, 50 to carton, wt. 45 lbs.	**4.30 per carton**

(Labels ordered extra)

Sixty-Pound Cans

60-lb. cans, 2⅜" cap, without boxes, 40c each; 6 cans, $2.10; 12 in carton, $3.84; 20 in crate, $6.50; 50, $15.00; 60-lb. cans, 2 in case, $1.10 per case; 10 cases, $10.20; 50 cases or more, at 99c each. Write for price on larger quantity. New cans in used cases, while stocks last, 15c per case less. Used cans in used cases when available, 50c case; 10 cases, $4.00.

Prices f.o.b. Medina, Ohio

New Modernistic Glassware

Root QUALITY
BEE SUPPLIES

The A. I. Root Co., Medina, O.

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Gleanings in Bee Culture

October · 1940

You Would Like to Receive More from YOUR BEES

.....profit from the experience of persons who have made beekeeping their life work, who have secured profitable yields of surplus honey. . . .

For the non-professional beekeeper we recommend STARTING RIGHT WITH BEES. 184 instructive illustrations and all the important operations in beekeeping described. 102 pages

ONLY

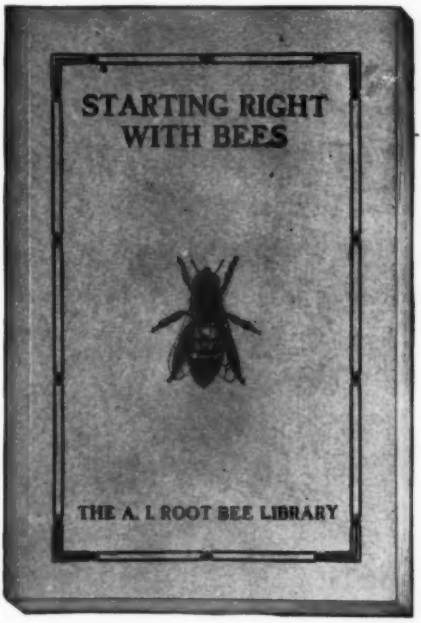
50c

postpaid

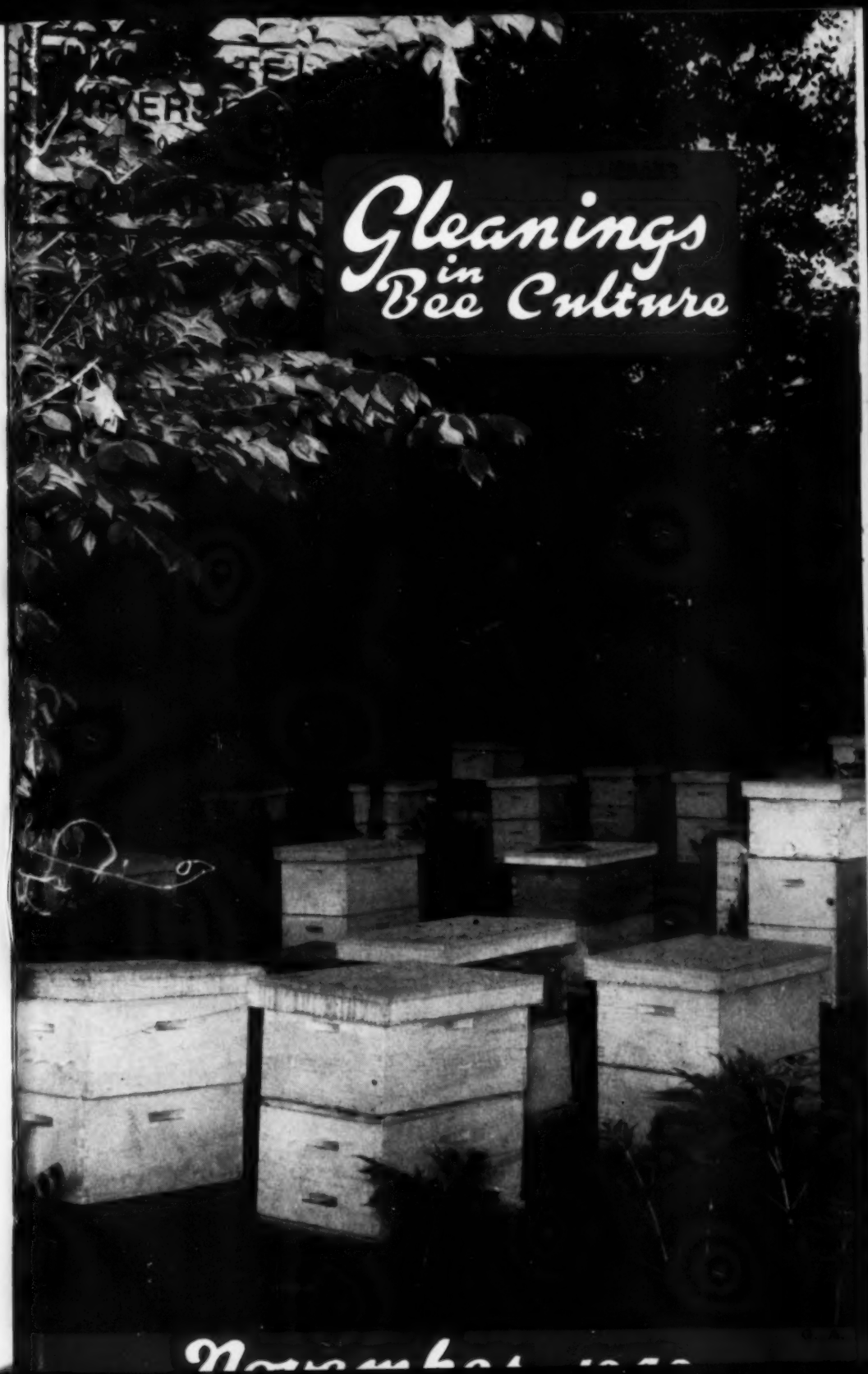
with 1 year subscription to Gleanings in Bee Culture

$1.25

Mail Now.



The A. I. Root Co., Medina, Ohio



XUM

Any Boy or Girl

who will mail, before December 1, 1940, 10 special trial-offer six-months subscriptions to Gleanings in Bee Culture for only 25 cents each from new readers or persons who have not taken the magazine for three years (not good for renewals, only one to an address)

—WILL RECEIVE FREE

the new Root toy that received honorable mention at the 1940 New York Toy Show. The magazine, "Children Activities" wrote: "It is one of the cleverest new construction and activity toys we have seen".

The Traffic Project

HERE IS WHAT THE SET CONTAINS:

Four small wooden automobiles, each 4½ inches long, hoods and bodies removable from chassis, 1 single garage, 1 stop-and-go sign, 1 greasing rack that raises and lowers the cars, 1 pair of gas pumps, route signs, no parking signs, 148 inches of sidewalk, and a folder giving "Safety First" rules. All pieces made of unstained basswood lumber, carefully sanded. Size of box 16⅛ x 11¾ x 1¾ inches.

Regular Retail Price

$1.00

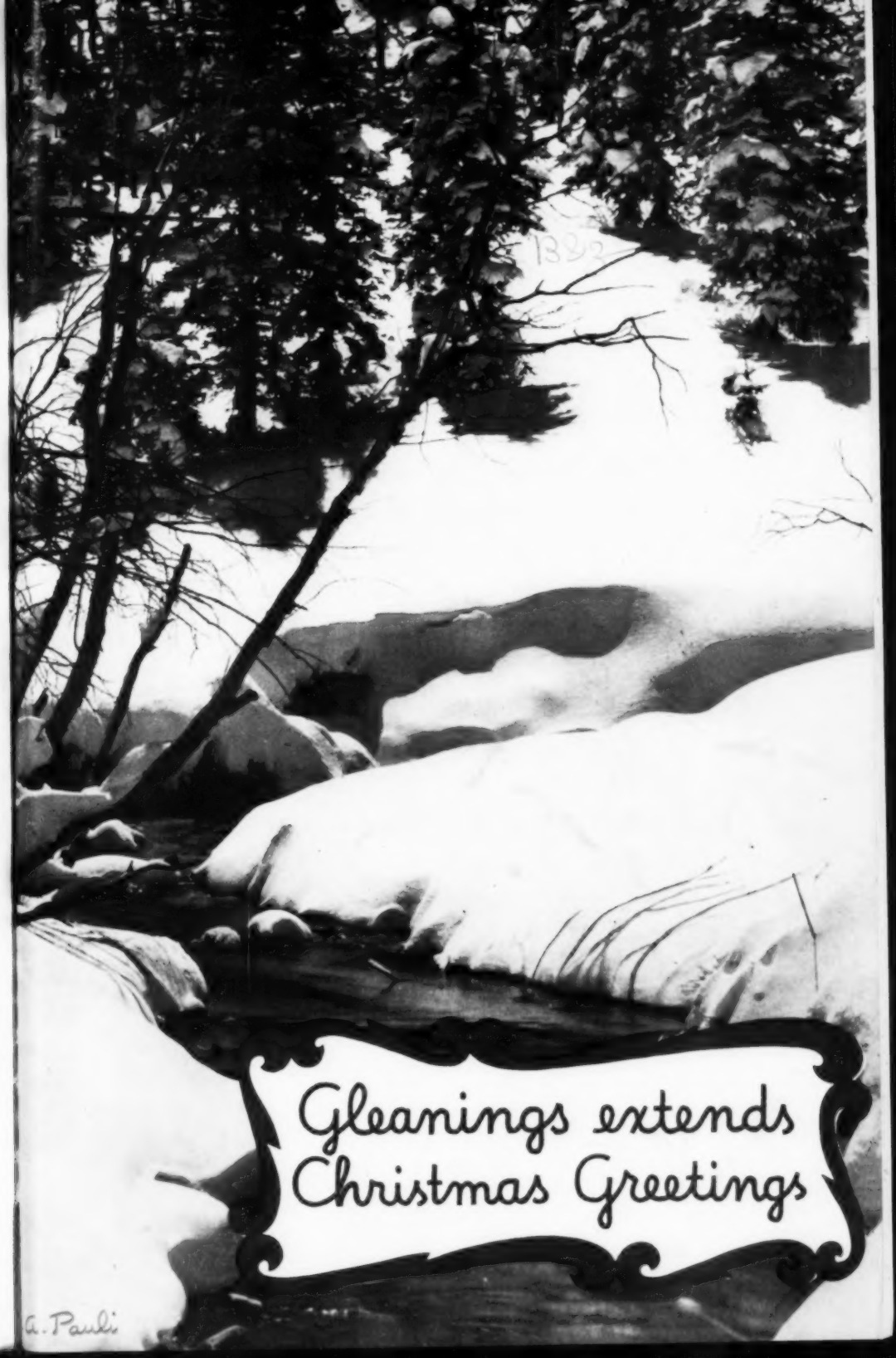
You will enjoy this fine toy.

Mail your 10 new subscriptions with $2.50 by Dec. 1, 1940.

To

Gleanings in Bee Culture

Medina, Ohio



XUM

Peace on Earth Good Will to Men

Men—big men, little men—have temporarily lost their way in this tragic struggle for supremacy. The battlefield—the white-crested waterways of the sea—the busy mart—the factories with whirling machines—the home, each have become the spectacle of this fight for selfish interest.

Men—big men, little men—have failed to build that peace between each other.

Peace on Earth, Good Will to Men comes when men, looking inward, find themselves —in a greater service to mankind.

A Joyous Holiday Season

The A. I. Root Co., Medina, Ohio

NEW PRICES---CONTAINERS

True Measure Honey Jars

Made for Honey
No Loss in Filling
Clear, White Tops

Round, Modernistic and Skep* Jars

With white caps	No. in case	Price per case	Ship. Wt. per case
8-oz. jars*	24	$0.68	12 lbs.
16-oz. jars*	24	.85	19 lbs.
32-oz. jars*	12	.60	15 lbs.
48-oz. jars	12	.65	18 lbs.

*Honey Skep Jars in these sizes.

Pail with No. 108C label. (Labels not included in prices.)

5-lb. Glass Pails

			Ship. Wt.
5-lb. Glass Honey Pail	6	$ .45	10 lbs.
5-lb. Glass Honey Pail	½ gross	5.00	120 lbs.
5-lb. Glass Honey Pail	1 gross	9.95	240 lbs.

Tin Cans and Pails

2½-lb. can,	24 to carton, wt. 16 lbs.	$1.08 per carton
2½-lb. can,	100 to carton, wt. 35 lbs.	3.80 for 100
5-lb. pail,	12 to carton, wt. 13 lbs.	.84 per carton
5-lb. pail,	50 to carton, wt. 29 lbs.	2.90 per carton
10-lb. pail,	6 to carton, wt. 12 lbs.	.60 per carton
10-lb. pail,	50 to carton, wt. 45 lbs.	4.30 per carton

Sixty-Pound Cans

60-lb. cans, 2 3/8" cap, without boxes, 40c each; 6 cans, $2.25; 12 in carton, $4.20; 20 in crate, $6.90; 50, $15.50; 60-lb. cans, 2 in case, $1.10 per case; 10 cases, $10.20; 50 cases or more, at 99c each. Write for price on larger quantity. New cans in used cases, while stocks last, 15c per case less. Used cans in used cases when aailable, 50c case; 10 cases, $4.00.

F.O.B. Medina, Ohio

THE A. I. ROOT COMPANY, Medina, Ohio

DEALER PRICES ARE HIGHER BECAUSE OF FREIGHT, CARTAGE, ETC.

XUM

Less than ONE Cent!

Think of it, LESS THAN ONE CENT is all that it costs you to get your honey displayed where the customers will SEE and BUY. Honey well displayed commands a better price

Root's Honey Display Carton

will secure preferred position for your honey on the counter

It not only displays the honey well but is a wonderful shipping carton---neat, attractive and serviceable . . . . .

Made to hold only beeway sections in cartons . . . . . .

24-section size---10, $2.25; 20, $4.25

12-section size---10, $1.95; 20, $3.35

(Occupies the smallest possible amount of counter space)

24 section size

Write for 1941 Honey Container Price List---Everything for marketing honey . . . . . .

Root QUALITY BEE SUPPLIES

The A. I. Root Co.
Medina, Ohio

Root QUALITY BEE SUPPLIES

The New HAZEL-ATLAS

SKYLINE HONEY JARS

A modern honey jar that combines an up-to-the-minute sales-boosting design with the practical considerations that appeal to the packer; big, smooth label space, wide mouths, heavy bases. Capacities from left to right: one-half pound; one pound; two pound; three pound; and four pound. Write for prices and free sample.

HAZEL-ATLAS GLASS CO.

WHEELING, W. VA.

THREE-PLY AIRCO FOUNDATION

The Greatest Non-Sag Foundation on the Market Today. Beekeepers Everywhere are Proclaiming it to be the Best by Increasing their Purchases Year After Year

75% of Our Brood Foundation Sales are for 3-ply Foundation

Buy 3-ply for Satisfaction and Economy

The A. I. Root Company : : : :
Medina, Ohio, U. S. A.

Leaders for over 60 Years

Any Number

By Express

Are You Looking for Package Bees or Queens?

If so, you have found the place to buy. We think we can offer you anything anyone else can. Our service is prompt and efficient. Our quality and strain is excellent. Our resources are sufficient to take care of your needs. Only book your order early to be sure you get them on the date you desire.

No deposit required to book. No obligation on your part to take all or even a part of your order should you see you could not use them.

Prices to June 1st:

2-lb. with queen.....$2.45 3-lb. with queen.....$3.15

Each additional pound of bees, 70c

Mated Italian queens, 75c

15% discount to dealers

The Stover Apiaries

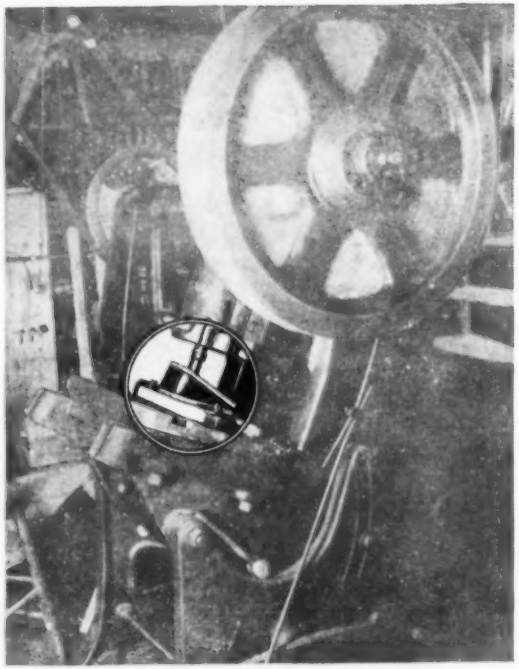
Mayhew, Miss.

By Truck

By Mail

XUM

Attention to Details Builds Quality



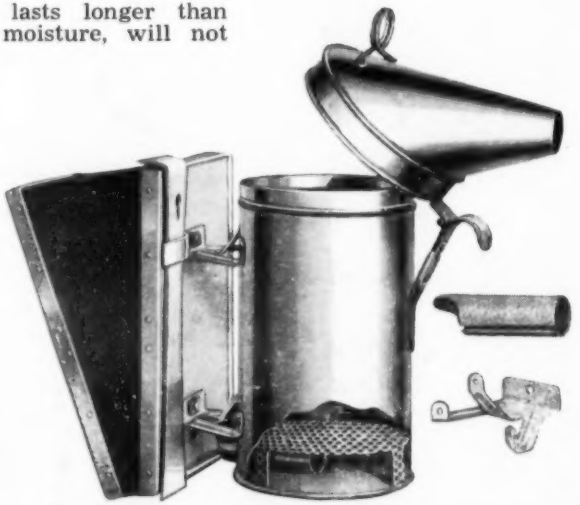
Buy Root Quality for Satisfaction

Grueling Test on Bellows

Our constant and relentless search for better material to be used in the manufacture of **Root** Quality Products includes not only the major items such as beeswax, wood and metal but such small details as the material used in Smoker Bellows.

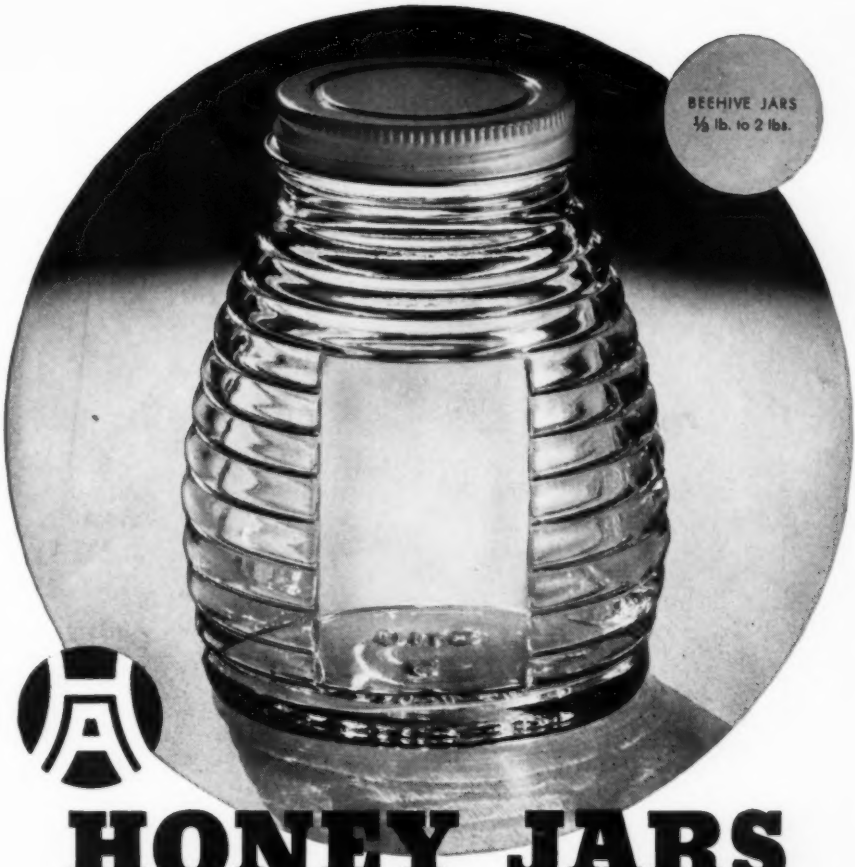
This wonderful material lasts longer than leather, does not absorb moisture, will not crack, etc.

The photograph shows how we tested the folding qualities of this material. The big press completely closed and opened the bellows more times than a beekeeper would in ten years of service in the bee yard.



A QUALITY PRODUCT
for

Root
QUALITY
BEE SUPPLIES



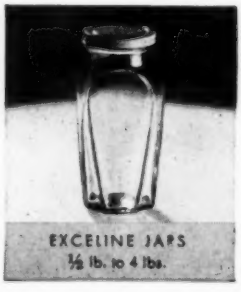
HONEY JARS

Hazel-Atlas presents four complete lines of Honey Jars, all designed specially for honey packers . . . Crystal clear glass displays the natural beauty of your product . . . Jars are easily packed and labeled . . . Available in a complete range of sizes . . . Write for free samples.

HAZEL-ATLAS GLASS CO.

WHEELING, W. VA.

TALL CYLINDER JARS
1¾ oz. (individual service) to 3 lbs.


EXCELINE JARS
½ lb. to 4 lbs.

SKYLINE JARS
½ lb. to 4 lbs.

XUM

THE radiant sun was bursting over Mount Apis. A new traveler had joined the great throng of bee-keepers as they ascended the mountain in search of him who would advise them in regard to their problems. Much talk and gossip had been on everyone's lips about the methods and equipment to use. At last the throne of the Wise King of Mount Apis was reached and the young bee-keeper asked, "What shall I use to succeed?" And the Wise one replied, "Go thou to the bee, study, and seek for the BEST BY THE BEE TEST."

The A. I. Root Co.

Medina, Ohio

3-PLY FOUNDATION
LOCKED CORNER FRAMES
SIMPLICITY EXTRACTOR
QUALITY SECTIONS
3 AND 7 WIRE EXCLUDERS
AND NUMEROUS OTHER
QUALITY PRODUCTS

Our Aim

To supply you with the best package bees and queens you can buy—at a reasonable price.

Our Responsibility

To see that you get these bees and queens on time, and in the best possible condition.

Our Record

Over twenty-five years of producing bees and queens, always seeking to improve both strain and service.

Our Motto

"You Must Be Satisfied."
If for any reason you are not satisfied with our service or quality, do not hesitate to write us to this effect.

Our Hope

That you will favor us with your orders this year, and be one of our many regular customers.

Italians Prices Caucasians

	Queens Each	Two-pound Pkgs. Each	Three-pound Pkgs. Each
1 to 24	$ .75	$2.40	$3.10
25 to 99	.65	2.20	2.85
100 or more	.60	2.00	2.60

Write for Literature

The Stover Apiaries

Mayhew, Mississippi

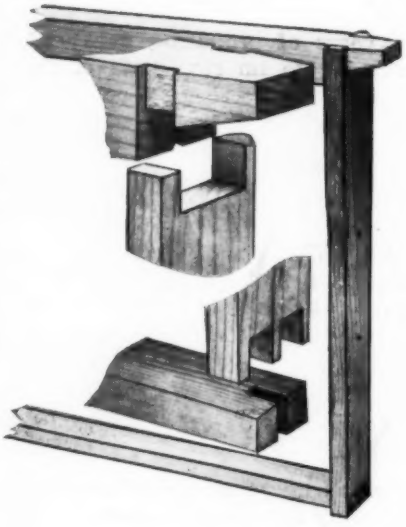
XUM

There Must Be a Reason Why

Root Sales Still Lead

AFTER 70 YEARS

Triple-Locked-Corner Frames



HISTORY OF FRAMES

Brood combs were at first cut out from box hives and then put back. There were no wood frames or strips. The next step was the building of the combs to strips of wood supported in the box. Naturally the bees built the combs out so that they were fastened to the sides and bottom.

Langstroth built the first removable frame. This was not self-spacing.

Hoffman designed the first brood frame with practical self-spacing end-bars.

Root's Standard Frame with its triple-locked-corners is the last great development in frames.

100
Root's Standard Frames
$5.40
Write for Prices on Large Quantities

Imitated by All
Equalled by None

Buy Root's for Satisfaction

Root QUALITY The A. I. Root Co., Medina, O. Root QUALITY

Bees Are Now Moving

Each season at about this time of the year bees start moving by the Thousands, "Yes, Millions", from the yards of The Stover Apiaries. In 1-lb. packages, in 2-lb. packages, in 3-lb. packages, in 4-lb packages, in 5-lb packages, in queen cages,—they start on their respective journeys, whether long or short.

It's our job to see that we have plenty of young bees, good queens (of high producing strain), plenty of cages and equipment to get them up, and a co-ordinated organization to handle the many phases of the business.

It's your job to have a good home for them when they arrive, and a location where nectar is prevalent; and a fair knowledge of beekeeping.

If neither of us fall down, you'll make a honey crop.

We'll Try To Do Our Part

	Queens Each	2-lb. Pkgs. with Queens Each	3-lb. Pkgs. with Queens Each	4-lb. Pkgs. with Queens Each	5-lb. Pkgs. with Queens Each
1 to 24	$ .60	$2.00	$2.65	$3.30	$3.95
25 to 99	.55	1.85	2.45	3.05	3.65
100 or more	.50	1.70	2.25	2.80	3.35

Prices Net—Payable in United States Funds

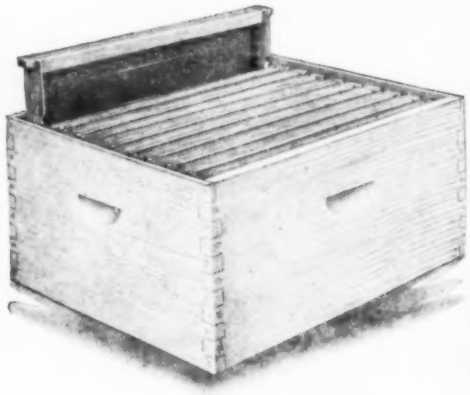
The Stover Apiaries

Mayhew **Mississippi**

XUM

There Must Be a Reason Why Root Quality Sales

Lead after 70 Years



- • • Made of soft (bee hive) pine lumber.
- • • Root's famous Tripled Locked-Corner Frames.
- • • Extra heavy Non-Bending Frame Supports.

5 Full-depth Supers with Frames, K.D. **$6.45**

Write direct to Medina for prices on Supers (commercial grade) in quantities of 100 and over.

The A. I. Root Co.
Medina, Ohio

HISTORY OF SUPERS

The term super in beekeeping has been applied for years to the boxes placed above the brood-chamber to hold the surplus honey.

In the beginning, a box or log gum was used that had space in the top for a limited amount of honey. Later a small opening was cut in the cover and above it was inverted a crock.

With the invention of the movable frame hive the leaders commenced to study the storing of honey in frames (box honey era).

The first reference to tiering boxes (hive bodies) is found in A. I. Root's writings: "My Simplicity hive was simply a square box with an open top and bottom. I wanted the bottom movable so that the lower story could be used as an upper one."

Various devices were developed to hold the boxes and were in time called supers.

The proper handling of supers may have considerable to do with the returns from the colony.

Root QUALITY
BEE SUPPLIES